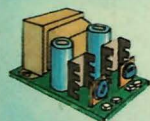


JAMECO ELECTRONICS



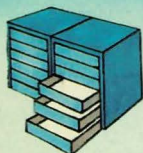
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JE215 Power
Supply Kit



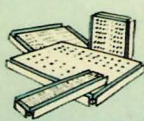
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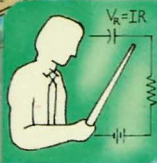
Bread Boards



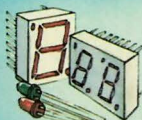
JE300
Thermometer Kit



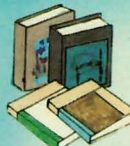
Grab
Bags



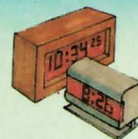
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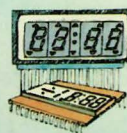
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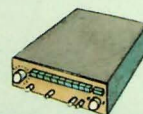
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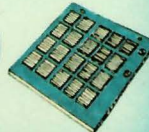
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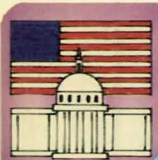
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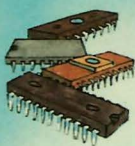
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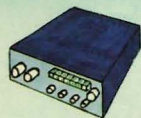
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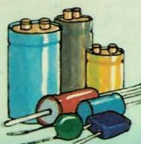
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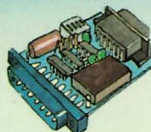
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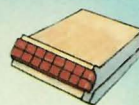
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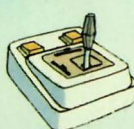
Disk Drives



JE232 Adapter



ProModem 1200



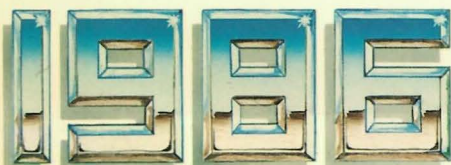
Joysticks



Surge Protector



JE864 RAM Card



CATALOG

JE670 GANG EPROM PROGRAMMER 8K TO 512K (E) EPROMS



NEW!

The JE670 is a stand-alone programmer that gang-programs most EPROMs and EEPROMs (up to 512K) from your Master IC. Operation is simple, foolproof and fast.

- Program capacity of 10 EPROMs at one time. Status indicator for each socket
- Fully automatic Blank-testing, Programming and Margin-testing EPROMs.
- Fully automatic verification against Master, both after Programming and during Margin-testing at two VCC's.
- Uses "Intelligent" algorithms to minimize programming times.
- All device sockets are Zero Insertion Force Textool® Sockets.



OPERATION: The JE670 Gang Programmer is fully operated with just 4 pushbuttons. Operation is simplified by employing Jumper Modules ("G" Series) for the different type devices. The JE670 is ideal for production programming and testing of IC's.

• Input: 115VAC, 60Hz, 15W • Size: 15 $\frac{5}{8}$ "L x 8 $\frac{3}{4}$ "D x 3 $\frac{1}{2}$ "H • Weight: 6.8 lbs.

JE670 GANG (E) EPROM PROGRAMMER (Assembled and Tested) (Includes JM G16A Module). **\$695.00**

JE670 JUMPER MODULES "G" SERIES (PERSONALITY MODULE) Partial Listing — New JM's To Be Announced

JE670 JM NO.	EPROM/MFG.	PRICE	JE670 JM NO.	EPROM/MFG.	PRICE
JM G8A	2758 (Single Voltage) Intel, National, etc.	\$19.95	JM G64B	TMS2564 TI	\$19.95
JM G16A	2716 Intel, TMS2516 TI, NEC, etc.	\$19.95	JM G64C	MCM68764, MCM68766 Motorola	\$19.95
JM G32A	2732A Intel, NEC, TI, etc.	\$19.95	JM G128A	27128 Intel, TI, NEC, etc.	\$19.95
JM G32B	2732 Intel, NEC, National, etc.	\$19.95	JM G256A	27256 Intel, NEC, Hitachi, etc.	\$19.95
JM G32C	MCM2532 Motorola, TI, National, etc.	\$19.95	JM G512A	27512 Intel, AMD, etc.	\$19.95
JM G64A	2764 Intel, NEC, TI, etc.	\$19.95	JM G513A	27513 Intel	\$19.95
EEPROMS/MFG.			EEPROMS/MFG.		
JM GE13A	5213, 52B13, SEEQ	\$19.95	JM GE32A	MCM2832 Motorola	\$19.95
JM GE16A	2816A Exel, Intel, Rockwell, Xicor, etc.	\$19.95	JM GE64A	X2864A, X2864B, X28C64 Xicor	\$19.95
JM GE16B	2816 Intel	\$19.95	JM GE256A	X28256, X28C256 Xicor	\$19.95

JE664 EPROM PROGRAMMER 8K TO 64K EPROMS



**NEW
Low
Price!**

JE664 EPROM Programmer is completely self-contained — requires no additional systems for operation.

- Emulates PROMs or EPROMs
- Programs and validates EPROMs
- Checks for properly erased EPROMs
- Loads data into internal RAMs by keyboard, EPROM or computer via RS232 option • Compares & copies EPROMs

OPERATION: The JE664 EPROM Programmer emulates and programs various 8-bit word EPROMs from 8K to 64K bit memory capacity. The JE664's RAMs may be accessed for emulation purposes from the panel's test socket to an external microprocessor. "Data" & "Address" displayed in convenient hex. format. • Input: 115VAC, 60Hz, 10W • Size: 15 $\frac{5}{8}$ "L x 8 $\frac{3}{4}$ "D x 3 $\frac{1}{2}$ "H • Wt: 5 $\frac{3}{4}$ lbs.

JE664-A EPROM Programmer (Assembled & Tested) (Includes JM 16A Module). **\$795.00**

JE665 — RS232C INTERFACE OPTION — The JE665 RS232C Interface Option implements computer access to the JE664's RAM. This allows the computer to manipulate, store and transfer EPROM data to and from the JE664. A sample program listing is supplied in MBASIC for CP/M computers. Documentation is provided to adapt the software to other computers with an RS232 port. 9600 Baud, 8-bit word, odd parity and 2 stop bits.

JE664-ARS EPROM Programmer w/JE665 Option (Assembled & Tested) (Includes JM16A Module) **\$995.00**

JE664-ARS-CP **JE664-ARS Communication Program** (5 $\frac{1}{4}$ " Disk & User's Instructions) **(See pg. 75)** **\$49.95**
JE664-CP CABLE **Cable for IBM-PC to JE664-ARS Programmer** (5' Shielded Cable & Connectors). **\$29.95**

EPROM JUMPER MODULES — The JE664's Jumper Module (Personality Module) is a plug-in Module that pre-sets the JE664 for proper programming pulses to the EPROM and configures the EPROM socket connections for that particular EPROM.

JE664 EPROM JUMPER MODULE NO.	EPROM	Programming Voltage	EPROM MANUFACTURER	PRICE
JM08A	2708	25V	AMD, Motorola, National, Intel, TI	\$14.95
JM16A	2716, TMS2516 (TI)	25V	Intel, Motorola, National, NEC, TI, AMD, Hitachi, Mostek	\$14.95
JM32A	TMS2532	25V	Motorola, TI, Hitachi, OKI	\$14.95
JM32B	2732	25V	AMD, Fujitsu, NEC, Hitachi, Intel, Mitsubishi, National	\$14.95
JM32C	2732A	21V	Fujitsu, Intel	\$14.95
JM64A	MCM68764, MCM68L764, MCM68766	25V	Motorola	\$14.95
JM64B	2764	21V	Intel, Fairchild, OKI	\$14.95
JM64C	TMS2564	25V	TI	\$14.95
JM64E	2764A	12.5V	Intel, AMD, etc.	\$14.95

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	Zilog, Inc. 1315 Dell Avenue Campbell, CA 95008 (408) 370-8000

TRANSISTOR TRANSISTOR LOGIC

7400 SERIES

TRANSISTOR TRANSISTOR LOGIC

Part No.	Pins	Function	Price
SN7400N	14	Quad 2-Input NAND Gate	\$.19
SN7401N	14	Quad 2-Input NAND Gate (Open Collector)	.19
SN7402N	14	Quad 2-Input NOR Gate	.19
SN7403N	14	Quad 2-Input NAND Gate (Open Collector)	.19
SN7404N	14	Hex Inverter (9016)	.25
SN7405N	14	Hex Inverter (Open Collector)	.29
SN7406N	14	Hex Inverter Buffer/Driver (O.C. Hi-Voltage)	.29
SN7407N	14	Hex Buffer/Driver (O.C. Hi-Voltage)	.29
SN7408N	14	Quad 2-Input AND Gate	.25
SN7409N	14	Quad 2-Input AND Gate (Open Collector)	.29
SN7410N	14	Triple 3-Input NAND Gate	.19
SN7411N	14	Triple 3-Input AND Gate	.29
SN7412N	14	Triple 3-Input NAND (O.C.)	.35
SN7413N	14	Dual 4-Input Schmitt Trigger	.35
SN7414N	14	Hex Schmitt Trigger Inverter	.45
SN7416N	14	Hex Inverter Buffer/Driver (O.C. Hi-Voltage)	.35
SN7417N	14	Hex Buffer/Driver (O.C. Hi-Voltage)	.35
SN7420N	14	Dual 4-Input NAND Gate	.19
SN7421N	14	Dual 4-Input Positive AND Gate	.35
SN7422N	14	Dual 4-Input NAND Gate (O.C.)	.49
SN7423N	16	Expandable Dual 4-Input NOR Gate	.49
SN7425N	14	Dual 4-Input NOR Gate	.39
SN7426N	14	Quad 2-Input TTL/MOS Inter. Gate	.29
SN7427N	14	Triple 3-Input NOR Gate	.29
SN7428N	14	Quad 2-Input NOR Buffer	.45
SN7430N	14	8-Input NAND Gate	.19
SN7432N	14	Quad 2-Input OR Gate	.29
SN7433N	14	Quad 2-Input NOR Buffer	.45
SN7437N	14	Quad 2-Input NAND Buffer	.29
SN7438N	14	Quad 2-Input NAND Buffer (Open Collector)	.29
SN7439N	14	Quad 2-Input NAND Buffer (Open Collector)	.69
SN7440N	14	Dual 4-Input NAND Buffer	.15
SN7441N	16	BCD-to-Decimal Decoder/Nixie TM Driver	.89
SN7442N	16	BCD-to-Decimal Decoder	.45
SN7443N	16	Excess 3-to-Decimal	.79
SN7444N	16	Excess 3-Gray-to-Decimal	.79
SN7445N	16	BCD-to-Decimal Decoder/Driver	.69
SN7446N	16	BCD-to-7 Segment Decoder/Driver (30V out)	.79
SN7447N	16	BCD-to-7 Segment Decoder/Driver (15V out)	.79
SN7448N	16	BCD-to-7 Segment Decoder/Driver	.79
SN7450N	14	Expan. Dual 2-Wide 2-In. AND/OR/Invert Gate	.19
SN7451N	14	Dual 2-Wide 2-In. AND/OR/Invert Gate	.19
SN7453N	14	Expan. 4-Wide 2-In. AND/OR/Invert Gate	.19
SN7454N	14	4-Wide 2-In. AND/OR/Invert Gate	.19
SN7459N	14	Dual 2-Wide 2-3-Input AND/OR/Invert Gate	.59
SN7460N	14	Dual 4-Input Expander	.25
SN7470N	14	Edge-Triggered JK Flip Flop	.39
SN7472N	14	JK Master/Slave Flip Flop	.39
SN7473N	14	Dual JK Master/Slave Flip Flop (DM8501)	.35
SN7474N	14	Dual D Flip Flop	.35
SN7475N	16	4-Bit Bistable Latch	.39
SN7476N	16	Dual JK Master/Slave Flip Flop	.35
SN7479N	14	Dual D Flip Flop	4.95
SN7480N	14	Gated Full Adder	.59
SN7482N	14	2-Bit Full Adder	.95
SN7483N	16	4-Bit Binary Full Adder	.49
SN7485N	16	4-Bit Magnitude Comparator	.55
SN7486N	14	Quad 2-Input EXCLUSIVE-OR Gate	.35
SN7489N	16	64-Bit Random Access Read/Write Mem. (3101)	1.95
SN7490N	14	Decade Counter	.39
SN7491N	14	8-Bit Shift Register	.69
SN7492N	14	Divide-by-12 Counter	.49
SN7493N	14	4-Bit Binary Counter	.35
SN7494N	14	4-Bit Shift Register (Parallel-IN, Serial-OUT)	.89
SN7495N	14	4-Bit Right Shift/Left Shift Register	.49
SN7496N	16	5-Bit Parallel-IN, Parallel-OUT Shift Register	.65
SN7497N	16	Synchronous 6-Bit Binary Rate Multipliers	2.69
SN74100N	24	Dual 4-Bit Bistable Latch	1.75
SN74104N	14	Gated J-K Master/Slave Flip Flop	.99
SN74105N	14	Gated J-K Master/Slave Flip Flop	.99
SN74107N	14	Dual J-K Master/Slave Flip Flop	.19
SN74109N	16	Dual J-K Pos-Edge Triggered F-F (9024)	.39
SN74116N	24	Dual 4-Bit Latches w/Clear (9308)	1.49
SN74120N	16	Dual Pulse Synchronizer	1.49

Part No.	Pins	Function	Price
SN74121N	14	Monostable Multivibrator	\$.29
SN74122N	14	Retriggerable Mono. Multivibrator w/Clear	.45
SN74123N	16	Dual Retriggerable Monostable Multivibrator	.49
SN74125N	14	Tri-State Quad Bus Buffer (DM8093)	.45
SN74126N	14	Tri-State Quad Bus Buffer (DM8094)	.49
SN74128N	14	Quad 2-Input NOR Buffer	.49
SN74132N	14	Quad Schmitt Trigger	.49
SN74136N	14	Quad 2-Input Exclusive-OR Gate	.69
SN74141N	16	BCD-to-Decimal Decoder/Driver	.89
SN74142N	16	BCD Counter-Latch-Driver	2.95
SN74143N	24	Center Decoder	3.95
SN74144N	24	Center Decoder	2.95
SN74145N	16	BCD-to-Decimal Decoder/Driver	.65
SN74147N	16	10/4 Priority Encoder	1.69
SN74148N	16	Priority Encoder (9318)	.89
SN74150N	24	16-Line to 1-Line Multiplexer	1.29
SN74151N	16	8-Channel Digital Multiplexer	.29
SN74152N	14	8-Channel Data Selector/Multiplexer	.49
SN74153N	16	Dual 4/1 Multiplexer	.39
SN74154N	24	4- to 16-Line Decoder/Demultiplexer (9311)	1.25
SN74155N	16	Dual 2/4 Demultiplexer	.49
SN74156N	16	Dual 2/4 Demultiplexer (O.C.)	.65
SN74157N	16	Quad 2/1 Data Selector (9322)	.49
SN74158N	16	Quad 2/1 Multiplexer (Inv. Out)	1.39
SN74159N	16	4- to 16-Line Decoder/Demultiplexer	1.49
SN74160N	16	Decade Counter with Asynchronous Clear	.79
SN74161N	16	Synchronous 4-Bit Counter (9316)	.59
SN74162N	16	Presetable Decade Counter w/Clear	.85
SN74163N	16	Synchronous 4-Bit Counter	.59
SN74164N	14	8-Bit Serial Shift Register (DM8570)	.69
SN74165N	16	Parallel Load 8-Bit Serial Shift Reg. (DM8590)	.69
SN74166N	16	8-Bit Shift Register	.69
SN74167N	16	Rate Multiplier	2.95
SN74170N	16	4x4 Register File	1.59
SN74172N	24	Register File	4.95
SN74173N	16	4-Bit Tri-State Register (DM8551)	.75
SN74174N	16	Hex D Flip Flop with Clear	.59
SN74175N	16	Quad D Flip Flop with Clear	.59
SN74176N	14	35MHz Presettable Decade Counter (N8280)	.89
SN74177N	14	35MHz Presettable Binary Counter (N8281)	.89
SN74179N	16	4-Bit Parallel-Access Shift Register	1.49
SN74180N	14	8-Bit Odd/Even Parity Generator/Checker	.69
SN74181N	24	Arithmetic Logic Unit	1.95
SN74182N	16	Look-Ahead Carry Generator (9342)	.75
SN74184N	16	BCD-to-Binary Converter	1.95
SN74185N	16	Binary-to-BCD Converter	1.95
SN74189N	16	T.S. 64-Bit Rndm-Acc. Read/Write Mem. (DM8599)	1.95
SN74190N	16	Up/Down Decade Counter	.89
SN74191N	16	Synchronous Binary Up/Down Counter	.89
SN74192N	16	Decade Up/Down Counter (DM8560)	.69
SN74193N	16	Binary Up/Down Counter (DM8563)	.69
SN74194N	16	4-Bit Bi-Directional Shift Register	.79
SN74195N	16	4-Bit Parallel-Access Shift Register (DM8300)	.79
SN74196N	14	Presetable Decade Counter (N8290)	.99
SN74197N	14	Presetable Binary Counter (N8291)	.89
SN74198N	24	8-Bit Shift Register	1.35
SN74199N	24	8-Bit Shift Register	1.35
SN74221N	16	Dual One-Shot Schmitt Trigger	.89
SN74247N	16	BCD-to-7 Segment Decoder/Driver	1.19
SN74251N	16	Tri-State 8-Channel Multiplexer (DM8121N)	.89
SN74259N	16	8-Bit Addressable Latch (9334)	1.95
SN74265N	16	Quad Complementary-Output Elements	.99
SN74273N	20	Octal D-Type Flip Flop with Clear	1.95
SN74276N	20	Quad J-K Flip Flop	2.49
SN74279N	16	Quad Debouncer	.59
SN74283N	16	4-Bit Binary Full Address with Fast Carry	1.39
SN74284N	16	Tri-State 4-Bit Multiplexer	2.95
SN74285N	16	Tri-State 4-Bit Multiplexer	2.95
SN74298N	16	Quad 2-Input Multiplexer w/Storage	.85
SN74365N	16	Tri-State Hex Buffer (DM8095)	.59
SN74366N	16	Tri-State Hex Buffer Inverter (DM8096)	.59
SN74367N	16	Tri-State Hex Buffer (DM8097)	.59
SN74368N	16	Tri-State Hex Buffer Inverter (DM8098)	.59
SN74390N	16	Dual 4-Bit Decade Counter	1.49
SN74393N	14	Dual 4-Bit Binary Counter w/Individual Clocks	1.49

— DUAL IN-LINE PACKAGES AS PER NATIONAL SEMICONDUCTOR'S SPECIFICATIONS —

	CN,E, or V Packages 8 pin Mini-Dip .250W x .400L		A, B or N Packages 14,16,18 or 20 pin .250W x .400L		L or N Package 22 pin .40W x 1.10L		J,L,N or P Package 24, 28, 40 pin		24-.515W x 1.29L 28-.515W x 1.49L 40-.530W x 2.06L
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FAST				74F00 SERIES				FAST			
Part No.	Pins	Function	Price	Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
74F00	14	Quad 2-Input NAND Gate	\$.59	74F158	16	Quad 2-Input Multiplexer (Inverted)	\$1.29				
74F02	14	Quad 2-Input NOR Gate	.59	74F193	16	4-Bit Up/Down Binary Counter	4.95				
74F04	14	Hex Inverter	.65	74F240	20	Tri-State Octal Line Driver (Inverting)	2.49				
74F08	14	Quad 2-Input AND Gate	.59	74F241	20	Tri-State Octal Line Driver (Non-Inverting)	2.49				
74F10	14	Triple 3-Input NAND Gate	.59	74F244	20	Tri-State Octal Line Driver	2.49				
74F32	14	Quad 2-Input OR Gate	.65	74F251	16	Tri-State 8-Channel Multiplexer	1.49				
74F74	14	Dual D Flip-Flop	.69	74F253	16	Tri-State Dual 4-Input Multiplexer	1.79				
74F86	14	Quad Exclusive OR Gate	.89	74F257	16	Tri-State Quad 2-Input Multiplexer	1.39				
74F109	16	Dual JK Positive Edge Flip-Flop	.89	74F373	20	Tri-State Octal Latch	2.95				
74F138	16	Expandable 3/8 Decoder	1.19	74F374	20	Tri-State Octal D Flip-Flop	2.95				
74F139	16	Expandable 2/4 Decoder	1.29	74F379	16	4-Bit Register, Common Enable	2.19				
74F157	16	Quad 2-Input Multiplexer	1.29								

HIGH SPEED				74H00 SERIES				HIGH SPEED			
Part No.	Pins	Function	Price	Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
74H00	14	Quad 2-Input NAND Gate	\$.59	74H54	14	4-Wide 2-Input AND/OR/Invert Gate	\$.59				
74H04	14	Hex Inverter	.59	74H55	14	2-Wide 4-Input AND/OR/Invert Gate	.59				
74H05	14	Hex Inverter (Open Collector)	.59	74H60	14	Dual 4-Input Expander	.59				
74H08	14	Quad 2-Input AND Gate	.59	74H61	14	Triple 3-Input Expander	.59				
74H10	14	Triple 3-Input NAND Gate	.59	74H62	14	4-Wide AND/OR Expander	.59				
74H11	14	3-Input Positive AND Gate	.59	74H71	14	R-S Flip-Flop	.59				
74H20	14	Dual 4-Input NAND Gate	.59	74H72	14	JK Master/Slave Flip-Flop	.59				
74H22	14	4-Input Positive NAND Gate	.59	74H73	14	Dual JK Master/Slave Flip-Flop	.69				
74H40	14	Dual 4-Input Buffer	.59	74H74	14	Dual D Flip-Flop	.69				
74H50	14	Expand. Dual 2-Wide 2-In. AND/OR/Inv. Gate	.59	74H76	16	Dual JK Master/Slave Flip-Flop	.99				
74H51	14	Dual 2-Wide 2-In. AND/OR/Invert Gate	.59	74H78	14	Dual JK Flip-Flop with Preset	.99				
74H52	14	Expandable 4-Wide AND/OR Gate	.59	74H103	14	Dual JK Negative Edge Triggered Flip-Flop	.69				

LOW POWER				74L00 SERIES				LOW POWER			
Part No.	Pins	Function	Price	Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
74L00	14	Quad 2-Input NAND Gate	\$.59	74L85	16	4-Bit Magnitude Comparator	\$4.95				
74L03	14	Quad 2-Input Gate (Open Collector)	.59	74L86	14	Quad Exclusive-OR Gate	.99				
74L04	14	Hex Inverter	.89	74L91	14	8-Bit Shift Register	2.49				
74L05	14	Hex Inverter (Open Collector)	.59	74L93	14	4-Bit Binary Counter	2.49				
74L10	14	Triple 3-Input NAND Gate	.59	74L95	14	4-Bit Right Shift/Left Shift Register	2.49				
74L20	14	Dual 4-Input NAND Gate	.59	74L98	16	4-Bit Storage Register	2.49				
74L30	14	8-Input NAND Gate	.49	74L123	16	TTL/Monostable Multivibrator	1.49				
74L32	14	Quad 2-Input Positive OR Gate	.69	74L154	24	4-Line to 16-Line Decoder/Demultiplexer	1.95				
74L42	16	BCD-to-Decimal Decoder	1.95	74L164	14	8-Bit Serial Shift Register	2.65				
74L54	14	4-Wide 2-In. AND/OR/Invert Gate	.59	74L165	16	Parallel Load 8-Bit Serial Shift Register	2.65				
74L72	14	JK Master/Slave Flip-Flop	.79	74L192	16	BCD Up/Down Counter	2.95				
74L73	14	Dual JK Master/Slave Flip-Flop	.99	74L193	16	4-Bit Binary Up/Down Counter	2.95				
74L74	14	Dual D Flip-Flop	.99	74L195	16	4-Bit Parallel-Access Shift Register	1.95				

SCHOTTKY				74S00 SERIES				SCHOTTKY			
Part No.	Pins	Function	Price	Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
74S00	14	Quad 2-Input NAND Gate	\$.29	74S175	16	Quad D Flip-Flop	\$.79				
74S02	14	Quad 2-Input NOR Gate	.29	74S181	24	Arithmetic Logic Unit	2.95				
74S03	14	Quad 2-Input NAND Gate (Open Collector)	.29	74S182	16	Look-Ahead Carry Generators	1.75				
74S04	14	Hex Inverter	.35	* 74S188*	16	256-Bit (32x8) PROM (Open Collector)	1.75				
74S05	14	Hex Inverter (Open Collector)	.35	* 74S189	16	64-Bit (16x4) RAM Tri-State	1.95				
74S08	14	Quad 2-Input AND Gate	.35	74S194	16	4-Bit Bi-Directional Shift Register	1.49				
74S09	14	Quad 2-Input AND Gate (Open Collector)	.39	74S195	16	4-Bit Parallel Shift Register (93S00)	1.49				
74S10	14	Triple 3-Input NAND Gate	.29	74S196	14	Presettable Decade Counter (82S90)	1.49				
74S11	14	Triple 3-Input AND Gate	.35	74S240	20	Tri-State Octal Line Driver	1.49				
74S15	14	Triple 3-Input AND Gate (Open Collector)	.35	74S241	20	Tri-State Octal Line Driver (Non-Inverting)	1.49				
74S20	14	Dual 4-Input NAND Gate	.35	74S242	14	Quadruple Bus Transceiver	2.69				
74S22	14	Dual 4-Input NAND Gate (Open Collector)	.35	74S243	14	Quadruple Bus Transceiver	2.69				
74S30	14	8-Input NAND Gate	.35	74S244	20	Tri-State Octal Line Driver	1.49				
74S32	14	Quad 2-Input OR Gate	.35	74S251	16	Tri-State 74S151	.79				
74S37	14	Quad 2-Input NAND Buffer	.69	74S253	16	Tri-State 74S153	.79				
74S38	14	Quad 2-Input NAND Buffer (Open Collector)	.69	74S257	16	Tri-State 74S157	.79				
74S40	14	Dual 4-Input NAND Buffer	.29	74S258	16	Tri-State 74S158	.99				
74S51	14	Dual 2-Input AND-OR-Invert Gate	.35	74S260	14	Dual 5-Input NOR Gate	.69				
74S64	14	AND-OR-Invert Gate	.39	74S273	20	Octal D-Type Flip-Flop (Clear)	2.39				
74S65	14	AND-OR-Invert Gate (Open Collector)	.39	74S287	16	9-Bit Parity Generator	1.89				
74S74	14	Dual D Flip-Flop	.49	* 74S288*	16	1K-Bit (256x4) PROM Tri-State	1.69				
74S85	16	4-Bit Magnitude Comparator	1.49	* 74S289*	16	256-Bit (32x8) PROM Tri-State	1.69				
74S86	14	Quad Exclusive OR Gate	.35	* 74S299	20	64-Bit (16x4) RAM Open Collector	2.95				
74S112	16	Dual JK Flip-Flop	.49	74S373	20	8-Bit Universal Shift/Storage Register	3.95				
74S113	14	Dual JK Flip-Flop (Preset)	.49	74S374	20	Octal D-Type Latch	1.69				
74S114	14	Dual JK F-F with Preset, Comm., Clk., Clr.	.55	74S379	16	Octal D Flip-Flop Tri-State	1.69				
74S124	16	Dual Voltage-Controlled Oscillators	2.75	74S381	20	4-Bit Register, Common Enable	2.95				
74S132	14	Quad Schmitt Trigger	1.49	* 74S387*	16	Arithmetic Logic Unit/Function Generator	5.95				
74S133	16	Tri-State NAND Gate	.45	74S412	24	1K-Bit (256x4) PROM Open Collector	1.69				
74S134	16	Tri-State 12-Input NAND Gate	.39	74S428	28	8-Bit Input/Output (DP8212)	1.95				
74S135	16	Quad Exclusive OR/NOR Gate	.89	74S438	28	System Controller/Bus Driver (DP8228)	3.49				
74S136	14	Quad Exclusive OR Gate	1.39	* 74S471*	20	System Controller (DP8238)	4.29				
74S138	16	Expandable 3/8 Decoder	.79	* 74S472*	20	2K-Bit (256x8) PROM Tri-State (TBP28L22N)	4.95				
74S139	16	Expandable 2/4 Decoder	.79	* 74S473*	20	4K-Bit (512x8) PROM Tri-State	2.49				
74S140	14	Dual 4-Input NAND Driver	.55	* 74S474*	20	4K-Bit (512x8) PROM Open Collector	3.95				
74S151	16	8-Input Multiplexer	.79	* 74S475*	24	4K-Bit (512x8) PROM Tri-State	3.49				
74S153	16	Dual 4/1 Multiplexer	.79	* 74S476*	18	4K-Bit (512x8) PROM Open Collector	3.49				
74S157	16	Quad 2-Input Multiplexer	.79	74S570*	16	4K-Bit (1024x4) PROM Tri-State (TBP24S41N)	4.95				
74S158	16	Quad 2-Input Multiplexer (Inverted)	.89	74S571*	16	2K-Bit (512x4) PROM Open Collector	2.95				
74S160	16	Decade Counter with Asynchronous Clear	4.95	74S572*	18	2K-Bit (512x4) PROM Tri-State	2.95				
74S161	16	Presettable Binary Counter	1.95	74S573*	18	4K-Bit (1024x4) PROM Open Collector	3.49				
74S163	16	Synchronous 4-Bit Counter	1.95	74S940	20	4K-Bit (1024x4) PROM Tri-State	2.95				
74S169	16	Synchronous 4-Bit Up/Down Binary Counter	3.95	74S941	20	Octal Buffer with Tri-State Outputs	1.95				
74S174	16	Hex D Flip-Flop	.79			Octal Buffer with Tri-State Outputs	1.95				

Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
74LS00	14	Quad 2 NAND Gate	\$.19	74LS169	16	Synch. Binary Up/Down Counter (74LS669)	\$.99
74LS01	14	Quad 2-Input NAND Gate	.19	74LS170	16	4x4 Register File	1.49
74LS02	14	Quad 2 NOR Gate	.19	74LS173	16	Quad D Register (Tri-State)	.49
74LS03	14	Quad 2 NAND Gate	.19	74LS174	16	Hex D Flip Flop with Clear	.39
74LS04	14	Hex Inverter	.25	74LS175	16	Quad D Flip Flop	.39
74LS05	14	Hex Inverter (Open Collector)	.25	74LS181	24	Arithmetic Logic Unit	1.49
74LS06	14	Hex Inverter Buffer/Driver (O.C. Hi-Volt.)	.99	74LS189	16	64-Bit RAM Tri-State	3.95
74LS07	14	Hex Buffer/Driver (O.C. Hi-Volt.)	.99	74LS190	16	Up/Down Decade Counter	.49
74LS08	14	Quad 2-Input AND Gate	.19	74LS191	16	Up/Down Binary Counter	.49
74LS09	14	Quad 2-Input AND Gate (Open Collector)	.19	74LS192	16	4-Bit Up/Down BCD Counter	.69
74LS10	14	Triple 3 NAND Gate	.19	74LS193	16	4-Bit Up/Down Binary Counter	.69
74LS11	14	Triple 3-Input AND Gate	.19	74LS194	16	4-Bit Bi-Directional Universal Shift Register	.59
74LS12	14	3-Input NAND Gate (Open Collector)	.19	74LS195	16	4-Bit Parallel-Access Shift Register	.59
74LS13	14	Dual Schmitt Trigger	.45	74LS196	14	Presetable Decade Counter	.89
74LS14	14	Hex Schmitt Trigger	.39	74LS197	14	Preset Binary Counter	.89
74LS15	14	Triple 3-Input AND Gate	.29	74LS221	16	Dual One-Shot	.59
74LS20	14	Dual 4 NAND Gate	.19	74LS240	20	Octal Inverting Bus/Line Driver	.69
74LS21	14	Dual 4-Input AND Gate	.25	74LS241	20	Octal Bus/Line Driver	.69
74LS22	14	Dual 4-Input NAND Gate (Open Collector)	.19	74LS242	14	Quad Bus Transceiver Inverting	1.09
74LS26	14	Quad 2-Input Interface Positive NAND Gate	.25	74LS243	14	Tri-State Quad Transceiver	.69
74LS27	14	Triple 3 NOR Gate	.25	74LS244	20	Octal Driver Non-Inverting Tri-State	.69
74LS28	14	Quad 2-Input Positive NOR Buffer	.29	74LS245	20	Octal Bus Transceiver Non-Inverting	.79
74LS30	14	8-Input NAND Gate	.19	74LS247	16	BCD to 7-Segment Decoder/Driver	.99
74LS32	14	Quad 2-Input Positive OR Gate	.25	74LS248	16	BCD to 7-Segment Decoder/Driver	.99
74LS33	14	Quad 2-Input NOR Buffer (Open Collector)	.39	74LS249	16	BCD to 7-Segment Decoder/Driver	.99
74LS37	14	Quad 2-Input NAND Buffer	.29	74LS251	16	Tri-State 8-Channel Multiplexer	.49
74LS38	14	Quad 2-Input NAND Buffer (Open Collector)	.29	74LS253	16	Dual 4-Input Multiplexer Tri-State	.49
74LS40	14	Dual 4 NAND Buffer	.29	74LS257	16	Quad 2-Input Multiplexer Tri-State	.49
74LS42	16	BCD-to-Decimal Decoder	.39	74LS258	16	Quad 2/1 Multiplexer	.39
74LS47	16	7-Segment Decoder/Driver	.89	74LS259	16	8-Bit Addressable Latch	1.19
74LS48	16	BCD to 7-Segment Decoder/Driver	.89	74LS260	14	Dual 5-Input NOR Gate	.49
74LS49	14	BCD to 7-Segment Decoder/Driver	.89	74LS261	16	2-Bit by 4-Bit Parallel Binary Multipliers	1.49
74LS51	14	Dual 2-Input AND/OR Invert Gate	.25	74LS266	14	Quad Ex-NOR Gate	.49
74LS54	14	Quad 2-Input AND/OR Invert Gate	.19	74LS273	20	8-Bit D Type Register	.79
74LS55	14	Dual 4-Input AND/OR Invert Gate	.19	74LS279	16	Quad S-R Latches	.39
74LS73	14	Dual JK Flip Flop with Clear	.35	74LS280	14	9-Bit Odd/Even Parity Generator/Checker	1.19
74LS74	14	Dual D Flip Flop	.25	74LS283	16	4-Bit Full Adder	.59
74LS75	16	Quad Latch	.29	74LS289	16	64-Bit RAM Open Collector	3.95
74LS76	16	Dual JK Flip Flop with Preset and Clear	.29	74LS293	14	4-Bit Binary Counter	.59
74LS78	14	Dual JK Flip Flop w/Preset Comm. Clk &Clr	.45	74LS298	16	Quad 2-Input Multiplexer with Storage	.89
74LS83	16	4-Bit Full Adder	.49	74LS299	20	8-Bit Universal Shift/Storage Register	1.49
74LS85	16	4-Bit Magnitude Comparator	.49	74LS322	20	8-Bit Serial/Parallel Reg. (25LS22)	2.95
74LS86	14	Quad Exclusive OR Gate 2-Input	.25	74LS323	20	8-Bit Univ. Shift/Storage Reg. (25LS23)	2.49
74LS90	14	Decade Counter	.39	74LS347	16	BCD to 7-Segment Decoder	.79
74LS91	14	8-Bit Shift Register	.79	74LS352	16	Dual 4-Bit Multiplexer (Inv. Out)	1.19
74LS92	14	Divide-by-Twelve Counter	.49	74LS353	16	Dual 4-Bit Multiplexer (Inv. Out)	1.19
74LS93	14	4-Bit Binary Counter	.39	74LS364	20	Octal D-Type Transparent Latch	1.95
74LS95	14	4-Bit Parallel-Access Shift Register	.49	74LS365	16	Hex Buffer (Tri-State)	.39
74LS96	16	5-Bit Shift Register	.49	74LS366	16	Hex Inverter (Tri-State)	.39
74LS107	14	Dual JK Master-Slave Flip Flop	.35	74LS367	16	Hex Buffer (Tri-State)	.39
74LS109	16	Dual JK Positive Edge Flip Flop	.35	74LS368	16	Hex Inverter (Tri-State)	.39
74LS112	16	Dual JK Negative Edge Flip Flop	.29	74LS373	20	Octal Transparent Latch	.79
74LS113	14	Dual JK Negative Edge Flip Flop	.35	74LS374	20	Octal Dual Flip Flop (Tri-State)	.79
74LS114	14	Dual JK Negative Edge Flip Flop	.35	74LS375	16	Quad Latch	.69
74LS122	14	Retriggerable Monostable Multivibrator	.45	74LS377	20	Octal D Register, Common Enable (25LS07)	.79
74LS123	16	Monostable Multivibrator with Clear	.49	74LS378	16	Hex D Register, Common Enable (25LS08)	1.09
74LS125	14	Tri-State Quad Buffer	.39	74LS379	16	4-Bit Register, Common Enable	.89
74LS126	14	Quad Buffer (Tri-State)	.39	74LS384	16	8-Bit Serial/Parallel Two's Complement Multiplier	5.95
74LS132	14	Quad Schmitt Trigger	.39	74LS386	14	Quad Ex-OR Gate	.45
74LS133	16	13-Input NAND Gate	.49	74LS390	16	Dual 4-Bit Binary Counter	1.09
74LS136	14	Quad Exclusive OR Gate	.39	74LS393	14	Dual 4-Bit Binary Counter	.79
74LS138	16	Expandable 3/8 Decoder	.39	74LS399	16	Quad 2-Mux with Q & Q Outputs (25LS09)	1.09
74LS139	16	Expandable Dual 2/4 Decoder	.39	74LS490	16	Dual 4-Bit Decade Counter	1.49
74LS145	16	BCD-to-Decimal Decoder/Driver	.89	74LS533	20	Octal Transparent Latch (Tri-State)	1.95
74LS147	16	10-Line to 4-Line Priority Encoder	.99	74LS534	20	Octal D-Type Flip Flop (Tri-State)	1.95
74LS148	16	8-Line to 3-Line Priority Encoder	.99	74LS540	20	Octal Buffer/Line Driver (Tri-State)	1.09
74LS151	16	8-Input Multiplexer	.39	74LS541	20	Octal Buffer/Line Driver (Tri-State)	1.09
74LS153	16	Dual 4-Input Multiplexer	.39	74LS590	16	8-Bit with Output Registers	5.95
74LS154	24	Single 4-16 Decoder	1.49	74LS624	14	Voltage Controlled Oscillator	1.95
74LS155	16	Dual 2/4 Demultiplexer	.49	74LS629	14	Dual Voltage-Controlled Oscillator	2.49
74LS156	16	Dual 2/4 Demultiplexer (Open Collector)	.49	74LS640	20	Octal Bus Transceiver (Inverting) Tri-State	.99
74LS157	16	Quad 2/1 Multiplexer	.35	74LS641	20	Octal Bus Transceiver (True) O.C.	1.29
74LS158	16	Quad 2/1 Multiplexer (Inv. Out)	.35	74LS644	20	Octal Bus Transceiver (True/Inverting) O.C.	1.29
74LS160	16	Presetable Decade Counter	.69	74LS645	20	Octal Bus Transceiver (True) Tri-State	.99
74LS161	16	Presetable Binary Counter	.39	74LS670	16	4x4 Register File (Tri-State)	.99
74LS162	16	Presetable Decade Counter with Clear	.69	74LS688	20	8-Bit Magnitude Comparator (25LS2521)	1.95
74LS163	16	Presetable Binary Counter with Clear	.49	81LS95	20	Tri-State Octal Buffer - True (74LS465)	1.49
74LS164	14	8-Bit Shift Register	.49	81LS96	20	Tri-State Octal Buffer - Inverting (74LS466)	1.49
74LS165	16	Parallel Load 8-Bit Serial Shift Register	.79	81LS97	20	Tri-State-Octal Buffer - True (74LS467)	1.49
74LS166	16	8-Bit Shift Register	.89	81LS98	20	Tri-State Octal Buffer - Inverting (74LS468)	1.49
74LS168	16	Synch. Decade Up/Down Counter (74LS668)	.99				

Part No.	Pins	Function	Price
74ALS00	14	Quad 2-Input NAND Gate	\$.35
74ALS02	14	Quad 2-Input NOR Gate	.35
74ALS04	14	Hex Inverter	.39
74ALS05	14	Hex Inverter (Open Collector)	.39
74ALS08	14	Quad 2-Input AND Gate	.35
74ALS10	14	Triple 3-Input NAND Gate	.35
74ALS27	14	Triple 3 NOR Gate	.39
74ALS30	14	8-Input NAND Gate	.35
74ALS32	14	Quad 2-Input OR Gate	.39
74ALS74	14	Dual D Flip-Flop	.55
74ALS109	16	Dual JK Positive Edge Flip-Flop	.55

Part No.	Pins	Function	Price
74ALS112	16	Dual JK Negative Edge Flip-Flop	\$.79
74ALS138	16	Expandable 3/8 Decoder	.89
74ALS174	16	Hex D Flip-Flop with Clear	.89
74ALS175	16	Quad D Flip-Flop	.89
74ALS240	20	Tri-State Octal Line Driver (Inverting)	1.79
74ALS244	20	Tri-State Octal Line Driver	1.79
74ALS245	20	Octal Bus Transceiver (Non-Inverting)	2.49
74ALS373	20	Tri-State Octal Latch	1.95
74ALS374	20	Tri-State Octal D Flip-Flop	1.95
74ALS573	20	Octal D Type Transparent Latch	1.95

INTERSIL

*Intersil's Evaluation Kits

FEO202D	40	4-Dig. LCD Display (for 7211IPL & 7211MIPL)	\$12.95
FEO203D	40	3 1/2-Digit LCD Display (for 7106 & 7116)	12.95
7106CPL	40	3 1/2-Digit A/D (LCD Drive) Converter	8.95
7106EV/Kit*	40	IC, Circuit Board, Display & Comp. (LCD)	46.95
7107CPL	40	3 1/2-Digit A/D (LED Drive) Converter	8.95
7107EV/Kit*	40	IC, Circuit Board, Display & Comp. (LED)	46.95
7116CPL	40	3 1/2-Digit A/D LCD Conv. w/Display HLD.	8.95
7201IUS	TO-72/4	Low Battery Volt Indicator	2.29
7206CJPE	16	Tone Generator	4.95
7206EV/Kit*	16	Tone Generator Chip, XTL & Data Sheet	7.95
7207AIPD	14	Oscillator Controller	5.95
7207AEV/Kit*	14	Freq. Controller Chip, XTL & Data Sheet	8.49
7208IPI	28	CMOS 7 Decade Counter	17.95
7209IPA	8	Clock Generator	3.95
7211IPL	40	4-Dig. LCD Disp. Decod./Driver (TTL Compat.)	7.95
7211MIPL	40	4-Dig. LCD Disp. Decod./Driv. (Micro Compat.)	8.49
7215IPG	24	4 Function CMOS Stopwatch CKT (LED)	16.95
7215EV/Kit*	24	4 Func. Stopwatch Chip, XTL, Data Sheet	19.49
7217IJI	28	4-Digit LED Up/Down Counter C.A.	10.95

7217AIP	28	4-Digit LED Up/Down Counter C.C.	\$8.95
7218CIJ	28	8-Digit Univ. LED Drive C.A.	8.95
7218DIJ	28	8-Digit Univ. LED Drive C.C.	8.75
7224IPL	40	LCD 4 1/2-Digit Up Counter Driver	10.95
7226AEV/Kit	40	5 Func. Counter Chip, XTL & Comp. Measures Frequency, Period, Time Interval, Frequency A/B, and Events (Unit Counter)	\$99.95
7240IJE	16	CMOS Bin Prog. Timer/Counter	4.95
7242IJA	8	CMOS Divide-by-256 RC Timer	2.25
7250IJE	16	CMOS BCD Prog. Timer/Counter	4.95
7555IPA	8	CMOS 555 Timer	.99
7556IPD	14	CMOS 556 Timer	1.49
7660CPA	8	Voltage Converter (+5 to ±5V)	2.49
8038CCPD	14	Waveform Generator	3.95
8048CCPE	16	Monolithic Log Amp	7.95
8069CCSQ	TO-52/2	50ppm Band-GAPV. Ref. Diode (7107CPL)	2.59
8211CPA	8	Volt Ref/Indicator (Programmable)	1.79
8212CPA	8	Volt Ref/Indicator (Programmable)	1.79

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CD4000 SERIES

CMOS

CD4000	14	Dual 3-Input NOR Gate plus Inverter	\$.19
CD4001	14	Quad 2-Input NOR Gate	.19
CD4002	14	Dual 4-Input NOR Gate	.25
CD4006	14	18-Stage Static Shift Register	.69
CD4007	14	Dual Complementary Pair plus Inverter	.25
CD4009	16	Hex/Buffer/Converter (Inverting)	.39
CD4010	16	Hex/Buffer/Converter (Non-Inverting)	.39
CD4011	14	Quad 2-Input NAND Gate	.19
CD4012	14	Dual 4-Input NAND Gate	.25
CD4013	14	Dual D Flip-Flop with Set/Reset	.35
CD4014	16	8-Stage Static Shift Register	.69
CD4015	16	Dual 4-Stage Static Shift Register	.25
CD4016	14	Quad Bilateral Switch	.29
CD4017	16	Decade Counter/Divider	.49
CD4018	16	Presetable Divide-by-N Counter	.69
CD4019	16	Quad AND/OR Select Gate	.35
CD4020	16	14-Stage Binary/Ripple Counter	.59
CD4021	16	8-Stage Static Shift Register	.69
CD4022	16	Divide-by-8 Counter/Divider	.69
CD4023	14	Triple 3-Input NAND Gate	.25
CD4024	14	7-Stage Binary Counter	.49
CD4025	14	Triple 3-Input NOR Gate	.25
CD4026	16	Decade Counter/Divider	1.49
CD4027	16	Dual JK Master-Slave Flip-Flop	.69
CD4028	16	BCD-to-Decimal Decoder	.65
CD4029	16	Presetable Up/Down Counter	.65
CD4030	14	Quad Exclusive-OR Gate (74C86)	.39
CD4034	24	8-Bit Shift Register (14034)	1.39
CD4035	16	4-Stage Parallel In/Out Shift Register	.85
CD4040	16	12-Stage Binary/Ripple Counter	.65
CD4041	14	Quad True/Complement Buffer	.75
CD4042	16	Quad Clocked D Latch	.59
CD4043	16	Quad NOR R-S Latch	.69
CD4044	16	Quad 3-State NAND R-S Latch	.69
CD4046	16	Micropower Phase-Locked Loop	.69
CD4047	14	Monostable/Astable Multivibrator	.89
CD4048	16	Expandable 8-Input Gate	.59
CD4049	16	Hex/Buffer/Converter (Inverting)	.29
CD4050	16	Hex/Buffer/Converter (Non-Inverting)	.29
CD4051	16	Single 8-Channel Multiplexer	.65
CD4052	16	Differential 4-Channel Multiplexer	.65
CD4053	16	Triple 2-Channel Multiplexer	.65
CD4056	16	BCD to 7-Segment Decoder/Driver	2.19
CD4059	24	Programmable Divide-by-N Counter	3.49
CD4060	16	14-Stage Ripple-Carry Binary	.89
CD4066	14	Quad Bilateral Switch	.29
CD4068	14	8-Input NAND Gate	.29

CD4069	14	Hex Inverter (74CO4)	\$.25
CD4070	14	Quad Exclusive-OR Gate (74C86)	.29
CD4071	14	Quad 2-Input OR Gate	.25
CD4072	14	Dual 4-Input OR Gate	.25
CD4073	14	Triple 3-Input AND Gate	.25
CD4075	14	Triple 3-Input OR Gate	.25
CD4076	16	Quad D Type Register (74C173)	.89
CD4077	14	Quad Exclusive-NOR Gate	.29
CD4078	14	8-Input NOR Gate	.29
CD4081	14	Quad 2-Input AND Gate	.25
CD4082	14	Dual 4-Input AND Gate	.25
CD4093	14	Quad 2-Input NAND Schmitt Trigger	.39
CD4094	16	8-Stage Shift-and-Store Bus Register	1.49
CD4098	16	COS/MOS Dual Monostable Multivibrator	1.49
CD4099	16	8-Bit Addressable Latch	1.39
CD40103	16	8-Bit Bin. COS/MOS Pre. Sync. Down Counter	2.95
CD4502	16	Strobed Hex Inverter/Buffer (14502)	.79
CD4503	16	Tri-State Hex Buffer (80C97)	.49
CD4508	24	Dual 4-Bit Latch (14508)	1.45
CD4510	16	BCD Up/Down Counter (14510)	.69
CD4511	16	BCD to 7-Seg. Latch/Decoder/Driver (14511)	.69
CD4512	16	8-Channel Data Selector (14512)	.69
CD4514	24	4-Bit latch/4-16 Line Decoder HI (14514)	.99
CD4515	24	4-Bit Latch/4-16 Decoder (14515)	1.39
CD4516	16	Binary Up/Down Counter (14516)	.79
CD4518	16	Dual BCD Up Counter (14518)	.79
CD4519	16	4-Bit AND/OR Selector (14519)	.39
CD4520	16	Dual Binary Up Counter (14520)	.79
CD4522	16	Program. BCD Divide-by-N Counter (14522)	.79
CD4526	16	Divide-by-N Counter (Binary) (14526)	.79
CD4528	16	Dual Monostable Multivibrator (14528)	.79
CD4529	16	Dual 4-Channel Analog Data Selector (14529)	1.49
CD4531	16	12-Bit Parity Tree (14531)	.89
CD4538	16	Dual Precision Mono. Multivibrator (14538)	.89
CD4541	16	Oscillator/Programmable Timer (14541)	.89
CD4543	16	BCD to 7-Segment Decoder (LCD) (14543)	.99
CD4553	16	3-Digit BCD Counter (14553)	4.95
CD4555	16	Dual Bin. 1 of 4 Decoder/Demultiplex. (14555)	.89
CD4556	16	Dual Binary 1 of 4 Decoder Inv. (14556)	.89
CD4560	16	NBCD Adder (14560)	3.95
CD4566	16	Industrial Time Base Generator (14566)	1.95
CD4572	16	Hex Gate (14572)	.89
CD4583	16	Dual Schmitt Trigger (14583)	1.19
CD4584	14	Hex Schmitt Trigger (14584)	.59
CD4585	16	4-Bit Comparator (14585)	.75
CD4723	16	Dual 4-Bit Addressable Latch	1.19
CD4724	16	8-Bit Addressable Latch	1.19

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CMOS

74C00 SERIES

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Part No.	Pins	Function	Price
74C00	14	Quad 2-Input NAND Gate	\$.29
74C02	14	Quad 2-Input NOR Gate	.29
74C04	14	Hex Inverter (4069)	.25
74C08	14	Quad 2-Input AND Gate	.35
74C10	14	Triple 3-Input NAND Gate	.29
74C14	14	Hex Schmitt Trigger (40106)	.49
74C20	14	Dual 4-Input NAND Gate	.29
74C30	14	8-Input AND Gate	.29
74C32	14	Quad 2-Input OR Gate	.35
74C42	16	BCD-to-Decimal Decoder	.89
74C48	16	BCD to 7-Segment Decoder/Driver	1.19
74C73	14	Dual JK Flip-Flop	.49
74C74	14	Dual D Flip-Flop	.49
74C85	16	4-Bit Comparator	1.19
74C86	14	Quad Exclusive OR Gate (4070)	.29
74C89	16	64-Bit (16x4) RAM (Tri-State) (4725)	3.95
74C90	14	4-Bit Decade Counter	.89
74C93	14	4-Bit Binary Counter	.89
74C95	14	4-Bit Shift Register	.99
74C107	14	Dual JK Data Selector	.55
74C151	16	8-Bit Data Select/Multiplex with Strobe	1.95
74C154	24	4-Line to 16-Line Decoder	2.95
74C157	16	Quad 2-Input Multiplexer	1.75
74C160	16	Synchronous Decade Counter (40160)	.89
74C161	16	Synchronous Binary Counter (40161)	.89
74C162	16	Fully Synchronous Decade Counter (40162)	.89
74C163	16	Fully Synchronous Binary Counter (40163)	.89
74C164	14	8-Bit Serial-In Para-Out Shift Register	.99
74C165	16	8-Bit Parallel-Load Shift Register	.99

Part No.	Pins	Function	Price
74C173	16	Tri-State Quad Latch (4076)	\$.89
74C174	16	Hex Flip-Flop (40174) (MC14174)	.89
74C175	16	Quad D Flip-Flop (40175) (MC14175)	.89
74C192	16	Decade Up/Down Counter (40192)	.99
74C193	16	Binary Up/Down Counter (40193)	.99
74C195	16	4-Bit Parallel Access Shift Register (40195)	.99
74C221	16	Dual Monostable Multivibrator	1.19
74C240	20	Tri-State Octal Buffer (Inverting)	1.59
74C244	20	Tri-State Octal Buffer (Non-Inverting)	1.59
74C373	20	Octal Flow-Thru Latch Tri-State	1.95
74C374	20	Octal D Flip-Flop Tri-State (INS82C06)	1.95
74C901	14	Hex Inverting Buffer (TTL Interface)	.49
74C902	14	Hex TTL Buffer	.49
74C903	14	Hex Inverting Buffer (MOS Interface)	.49
74C906	14	Hex Open Drain N-Channel Buffer	.49
74C907	14	Open Drain Buffer (Active Pull Down)	.59
74C911	28	Display Controller (INS8247)	7.95
74C912	28	Display Controller (INS8248)	7.95
74C915	18	7-Segment to BCD Decoder	1.19
74C917	28	Display Controller	7.95
74C920	22	256x4 1K Static RAM	9.95
74C921	18	256x4 1K Static RAM	9.95
74C922	18	16-Key Keyboard Encoder (INS8245)	3.95
74C923	20	20-Key Keyboard Encoder (INS8246)	3.95
74C925	16	4-Digit CTR w/MUX D Segment Driver	4.95
74C926	18	4-Digit CTR w/MUX D Segment Driver	4.95
74C930	18	1024x1 1K Static RAM	9.95
80C95	16	Tri-State Hex Buffer	.69
80C97	16	Tri-State Hex Buffer (4503)	.69

HIGH SPEED CMOS

74HC00 SERIES

HIGH SPEED CMOS

Part No.	Pins	Function	Price
74HC00	14	Quad 2-Input NAND Gate	\$.35
74HC02	14	Quad 2-Input NOR Gate	.39
74HC03	14	2-Input NAND Gate (Open Drain)	.39
74HC04	14	Hex Inverter (Buffered)	.39
74HC04	14	Hex Inverter (Unbuffered)	.39
74HC08	14	Quad 2-Input AND Gate	.39
74HC10	14	Triple 3-Input NAND Gate	.39
74HC11	14	Triple 3-Input AND Gate	.39
74HC14	14	Hex Inverting Schmitt Trigger	.59
74HC20	14	Dual 4-Input NAND Gate	.39
74HC27	14	Triple 3-Input NOR Gate	.39
74HC30	14	8-Input NAND Gate	.39
74HC32	14	Quad 2-Input OR Gate	.45
74HC42	16	BCD-to-Decimal Decoder	.75
74HC51	14	Dual 2-Input AND-OR-Invert Gate	.39
74HC58	14	Dual AND/OR Gate	.39
74HC73	14	Dual J-K Flip-Flop with Clear	.45
74HC74	14	Dual D Flip-Flop with Preset and Clear	.45
74HC75	16	4-Bit Bistable Latch with Q&Q Output	.69
74HC76	16	Dual J-K Flip-Flop with Preset and Clear	.69
74HC85	16	4-Bit Magnitude Comparator	1.19
74HC86	14	Quad 2-Input Exclusive-OR (XOR) Gate	.59
74HC107	14	Dual J-K Flip-Flop with Clear	.49
74HC109	16	Dual J-K Flip-Flop with Preset and Clear	.49
74HC112	16	Dual J-K Flip-Flop with Preset and Clear	.49
74HC113	14	Dual J-K Flip-Flop with Preset	.49
74HC123	16	Dual Monostable Multivibrator	1.19
74HC125	14	Tri-State Quad Buffer	.99
74HC132	14	Quad 2-Input NAND Schmitt Trigger	.79
74HC137	16	1 to 8 with Latch Decoder (Inverting Output)	1.19
74HC138	16	3-to-8 Line Decoder	.79
74HC139	16	Expandable Dual 2/4 Line Decoder	.79
74HC147	16	10/4 Line Priority Encoder	.99
74HC151	16	8-Channel Digital Multiplexer	.79
74HC153	16	Dual 4-Input Multiplexer	.79
74HC154	S-24	4/16 Line Decoder (use 24 pin-SLP Socket)	1.95
74HC157	16	Quad 2-Input Multiplexer	.79
74HC158	16	Quad 2-Input Multiplexer (Inverting Output)	.79
74HC160	16	Synchronous Decade Counter	.89
74HC161	16	Synchronous Binary Counter	.89
74HC162	16	Synchronous Decade Counter	.89
74HC163	16	Synchronous Binary Counter	.89
74HC164	14	8-Bit Serial-in/Parallel-out Shift Register	.99
74HC165	16	8-Bit Parallel-in/Serial-out Shift Register	1.49
74HC166	16	8-Bit Shift Register	1.95
74HC173	16	Tri-State Quad D Flip-Flop	.89
74HC174	16	Hex D Flip-Flop with Clear	.89

Part No.	Pins	Function	Price
74HC175	16	Quad D Type Flip-Flop with Clear	\$.89
74HC190	16	Up/Down Decade Counter	1.19
74HC191	16	Up/Down Binary Counter	1.19
74HC192	16	Synchronous Decade Up/Down Counter	.99
74HC193	16	Synchronous Binary Up/Down Counter	.99
74HC194	16	4-Bit Bidirectional Universal Shift Register	.89
74HC195	16	4-Bit Parallel Shift Register	.89
74HC221	16	Dual Monostable Multivibrator	1.95
74HC237	16	3-to-8 Line Decoder with Address Latches	1.19
74HC240	20	Inverting Octal Tri-State Buffer	1.39
74HC241	20	Octal Tri-State Buffer (TTL Buffer)	1.39
74HC242	14	Inverting Quad Tri-State Transceiver	1.39
74HC243	14	Quad Tri-State Transceiver	1.39
74HC244	20	Octal Tri-State Buffer	1.49
74HC245	20	Octal Tri-State Transceiver	1.59
74HC251	16	Tri-State 8-Channel Multiplexer	.79
74HC253	16	Dual 4-Channel Tri-State Multiplexer	.79
74HC257	16	Quad 2-Channel Tri-State Multiplexer	.79
74HC259	16	8-Bit Addressable Latch 3-to-8 Line Decoder	1.19
74HC266	14	Quad 2-Input Exclusive-NOR (XNOR) Gate	.69
74HC273	20	Octal D Flip-Flop	1.79
74HC280	14	9-Bit Odd/Even Parity Generator/Checker	2.95
74HC299	20	8-Bit Tri-State Universal Shift Register	3.19
74HC366	16	Tri-State Hex Inverter	1.49
74HC367	16	Tri-State Hex Buffer	1.49
74HC373	20	Tri-State Octal D Type Latch	1.49
74HC374	20	Tri-State Octal D Type Flip-Flop	1.49
74HC390	16	Dual 4-Bit Decade Counter	1.19
74HC393	14	Dual 4-Bit Binary Counter	1.19
74HC533	20	Tri-State Octal D Type Latch w/Inv. Output	1.95
74HC534	20	Tri-St. Octal D Type Flip-Flop (Inv. Outputs)	1.95
74HC563	20	Tri-St. Octal D Type Latch w/Inv. Outputs	2.49
74HC595	16	8-Bit Serial-to-Parallel Shift Register Latch	1.95
74HC688	20	8-Bit Mag. Comparator (Equality Detector)	1.95
74HC4002	14	Dual 4-Input NOR Gate	.49
74HC4017	16	Decade Counter/Div. w/10 Decoded Outputs	1.19
74HC4020	16	14-Stage Binary Counter	1.19
74HC4024	14	7-Stage Ripple Counter	1.19
74HC4040	16	12-Stage Binary Counter	1.19
74HC4049	16	Hex/Buffer/Converter (Inverting)	.79
74HC4050	16	Hex/Buffer/Converter (Non-Inverting)	.79
74HC4060	16	14-Stage Binary Counter	1.19
74HC4075	14	Triple 3-Input OR Gate	.49
74HC4078	14	8-Input NOR Gate	.49
74HC4511	16	BCD-to-7 Segment Latch/Decoder Driver	1.95
74HC4514	S-24	4/16-Line Decoder w/Latch (use 24 pin-SLP socket)	2.95
74HC4538	16	Dual Retriggerable Monostable Multiv.	1.95
74HC4543	16	BCD-to-7 Seg. Latch/Decoder for LCDs	2.95

LINEAR

Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
LH0002CN	10	Buffer Amplifier	\$5.95	TL497ACN	14	Fixed-On-Time Var.-Freq. Switch. Volt. Reg.	\$2.19
LM10CLN	TO-5/8	Low Voltage (1.1 volt) Op Amp	2.95	NE531V	8	Op Amp	1.79
LM10CLN	8	Low Voltage (1.1 volt) Op Amp	2.19	NE540H	TO-5/10	Power Driver (C540H)	2.95★
MF10CN	20	General Purpose Dual Active Filter	2.95	NE544N	14	Servo Amp	1.49
LM11CLH	TO-5/8	Precision DC Op Amp	2.95	NE550A	14	Voltage Regulator	.69★
DH0017CN	10	Relay/Lamp Driver	2.49★	NE550H	TO-5/10	Precision Voltage Regulator	.69★
DS0026CN	8	Dual MOS Clock Driver (5MHz) 20V Output	1.69	NE555V	8	Timer (MC1455P) (UPC1555C)	.29
TL064CN	14	Low-Power JFET-Input Op Amp	1.95	XR-L555	8	Low Power 555 Timer	.69
LH0070-OH	TO-5/8	Precision BCD Buffered Reference	3.95	LM556N	14	Dual 555 Timer	.59
TL071CP	8	Low Noise BIFET Op Amp	.59	NE558N	16	Quad Timer	1.19
TL072CP	8	Low Noise BIFET Dual Op Amp	.79	NE564N	16	Digital Phase Locked Loop	1.95
TL074CN	14	Quad Low Noise BIFET Op Amp	.79	LM565N	14	Phased Locked Loop	.99
78MGUIC	TO-220/4	Positive/Adjustable Regulator (500mA)	1.19	LM565CH	TO-5/10	Phased Locked Loop	1.39★
TL081CP	8	JFET-Input Op Amp	.49	LM566CN	8	Function Generator	1.39★
TL082CP	8	Gen. Purpose BIFET Dual Op Amp	.69	LM567V	8	Tone Decoder Phased Locked Loop	.89
TL084CN	14	Gen. Purpose BIFET Quad Op Amp	1.09	NE570N	16	Compander	2.49
AF100-1CN	16	Universal Active Filter (2.5%)	8.95	NE571N	16	Compander	1.95
LM109K	TO-3	5V 1.5A Regulator	4.95★	NE592N	14	Video Amp	.89
LM300H	TO-5/8	Positive Voltage Regulator (2V-20V)	.69★	LM703CN	8	RF-IF Amp	1.19★
LM301N	8	Improved Op Amp	.35	LM709N	14	Op Amp	1.49
LM301H	TO-5/8	Improved Op Amp	.45★	LM709CH	TO-5/8	Op Amp	.89
LM302H	TO-5/8	Voltage Follower	.69★	LM710N	14	Voltage Comparator	.79
LM304H	TO-5/10	Negative Voltage Regulator (0-30V)	.99★	LM710CH	TO-5/8	Voltage Comparator	.69★
LM305H	TO-5/8	Positive Voltage Regulator (4.5V-40V)	.99	LM711N	14	Dual Difference Comparator	.79
LM307N	8	Op Amp (Super 741)	.45	LM711CH	TO-5/10	Dual Difference Comparator	.69★
LM307H	TO-5/8	Op Amp (Super 741)	.49★	LM723CN	14	Voltage Regulator (2V-37V)	.45
LM308N	8	Micro Power Op Amp	.59	LM723CH	TO-5/10	Voltage Regulator (2V-37V)	.49★
LM308H	TO-5/8	Micro Power Op Amp	.69★	LM725CN	8	Instrumentation Op Amp	2.49
LM309K	TO-3	5-Volt Amp Regulator (1 Amp)	1.25	LM733CN	14	Video Amp	.69
LM310N	8	Improved Op Amp-Volt. Follower	1.29	LM739N	14	Dual Hi-Performance Op Amp (UA4739)	2.95
LM310H	TO-5/8	Improved Op Amp-Volt. Follower	1.39★	LM741CN	8	Compensated Op Amp (ULN2151)	.29
LM311N	8	Hi-Performance Volt. Comparator	.45	LM741CH	TO-5/8	Compensated Op Amp	.59
LM311-14N	TO-5/8	Hi-Performance Volt. Comparator	.49★	LM741-14N	14	Compensated Op Amp	.59
LM311H	TO-5/8	Hi-Performance Volt. Comparator	.59★	LM747CN	14	Dual 741 Op Amp	.59
LM312H	TO-5/8	Op Amp	1.49★	LM747CH	TO-5/10	Dual 741 Op Amp	.59★
LM317K	TO-3	1.5A Adj. Pos. Regulator (1.2V-37V)	2.95	LM748CN	8	Frequency Adjusted 741	.59
LM317LZ	TO-92/3	100mA Adjustable Regulator (1.2V-37V)	.69	LM748CH	TO-5/8	Frequency Adjusted 741	.69★
LM317MP	TO-202/3	5A/3 Term. Adj. Pos. Reg. (1.2V-37V)	.89	UA760HC	TO-5/8	High-Speed Differential Comparator	1.29★
LM317T	TO-220	1.5A/3 Term. Adj. Pos. Reg. (1.2V-37V)	.99	DS826AN	16	Quad T.S. Bus Transc. (MC6880) (N8T26)	1.59
LM318N	8	Precision Hi-Speed Op Amp	1.19	DS828N	16	Quad Tri-State Line Driver (N8T28)	1.75
LM318H	TO-5/8	Precision Hi-Speed Op Amp	1.29★	LM1014N-2	8	Motor Speed Control	1.19
LM319N	14	Hi-Speed Dual Comparator	1.19	LM1303N	14	Stereo Pre-Amp	.59★
LM320MP-12	TO-202/3	12V Negative Voltage Regulator (0.50A)	.49★	LM1310N	14	Stereo Demodulator (ULN2110)	1.39★
LM320MLP-5	TO-202/3	5V Negative Voltage Regulator (0.25A)	.55★	MC1330A1	8	Low Level Video Detector	.89★
LM322N	14	PrecisionTimer	1.49	MC1349	8	Video IF Amp (15V)	.79★
LM323K	TO-3	5-Volt Positive 3-Amp Regulator	4.49	MC1350	8	Video IF Amp (12V)	.59★
LM324N	14	Low Power Quad Op Amp (ULN4336)	.39	MC1358	14	TV Sound IF Amp	.59★
LM329DZ	TO-92/3	Precision Zener 100PPM/C° 6.9V	.55	LM1456V	8	Op Amp Hi-Performance (N5556)	1.95
LM331N	8	Precision Voltage to Freq. Converter	3.49	LM1458N	8	Dual Comp. Op Amp (MC5558V/RC4558)	.49
LM334Z	TO-92/3	Constant Current Source	1.19	LM1458H	TO-5/8	Dual Comp. Op Amp (MC5558H/RC4558H)	.55★
LM335Z	TO-92/3	Voltage Mode Temperature Sensor	1.29	LM1488N	14	Quad Line Driver (75188) RS232	.69
LM336Z	TO-92/3	Voltage Reference (2.5V)	1.09	LM1489N	14	Quad Line Receiver (75189) RS232	.69
LM337MP	TO-202/3	5A/3 Term. Adj. Neg. Reg. (1.2V-37V)	1.15	LM1496H	14	Balanced Mod/Demodulator	.99
LM337T	TO-220	1.5A/3 Term. Adj. Neg. Reg. (1.2V-37V)	1.49	LM1496H	TO-5/10	Balanced Modulator/Demodulator	.95★
LM338K	TO-3	5A Adjust. Pos. Regulator (1.2V-32V)	3.95	LM1605CK	TO-3/8	5A Hi. Eff. Switching Reg. (Adj. 3-30V)	9.95
LM339N	14	Quad Comparator	.49	MC1714SCG	TO-5/8	High Slew Op Amp	1.19
LM341P-5	TO-202/3	12V Pos. (0.5A) Volt Reg. (78M05-Similar)	.39★	LM1800N	16	P.L.L. Stereo Decoder (UA758/ULN2244)	1.49★
LM341P-12	TO-202/3	12V Pos. (0.5A) Volt Reg. (78M12-Similar)	.39★	LM1818N	16	Elec. Switched Cassette L.C.	1.19★
LM341P-15	TO-202/3	15V Pos. (0.5A) Volt Reg. (78M15-Similar)	.39★	LM1871N	18	Radio Control Encoder/Transmitter	1.95
LM342P-5	TO-202/3	5V Pos. (0.25A) Volt Reg.	.39★	LM1872N	18	Radio Control Receiver/Decoder	2.49
LM342P-12	TO-202/3	12V Pos. (0.25A) Volt Reg.	.39★	LM1877N-9	14	Dual Power Audio Amp	2.49
LM342P-15	TO-202/3	15V Pos. (0.25A) Volt Reg.	.39★	LM1886N	20	TV Video Matrix D to A Converter	2.19
LM346N	16	Programmable Quad Op Amp	1.29	LM1889N	18	Video Modulator	1.59
LF347N	14	Quad JFET Input Op Amp (Wide Band)	.99	LM1893N	18	Carrier Current Trans. (Power Line Carrier)	6.95
LM348N	14	Quad 741 Op Amp	.69	LM1896N-1	14	Low Voltage Dual Audio Amp	1.59
LM350K	TO-3	3A/3 Term. Adj. Pos. Reg. (1.2V-33V)	3.95	LM2002T	TO-220/5	8-Watt Audio Power Amp	1.95
LF351N	8	BIFET Op Amp	.49	TDA2002V	TO-220/5	8-Watt Audio High Power Amp	1.99★
LF353N	8	Dual BIFET Op Amp (Compat. w/TL082COP)	.59	ULN2003A	16	Hi Volt. Hi Curr. Darlington Transistor Array	.99
LF355N	8	JFET Input Op Amp Low Input	.89	ULN2023	16	7-Channel, High Voltage & Amp Driver	.99★
LF356N	8	JFET General Purpose Input Op Amp	.89	ULN2064	16	Peripheral Driver	1.69★
LM358N	8	Low Power Dual Op Amp	.49	ULN2074	16	Peripheral Driver	1.19★
LM359N	14	High Speed Norton Op Amp	1.59	DS26L331CN	16	Quad Diff. Line Driver	1.49
LM360N	8	High Speed Differential Volt. Comparator	2.19	DS26L332CN	16	Quad Diff. Line Receiver	1.49
LM361H	TO-5/10	High Speed Comparator	1.19★	ULN2803A	18	Hi-Volt., Hi-Curr. Darlington Trans. Array	1.19
LM361N	14	Hi Speed Diff. Volt Comp. w/Indep. Strobes (NE529)	1.59	LM2877P	P11A	Dual Power Audio Amp (SIP)	1.95
LM370N	14	AGC Squelch Amp	4.95★	LM2878P	P11A	Dual 6-Watt Audio Amp (SIP)	2.19
LM373N	14	AM/FM/SSB Strip	4.95★	LM2901N	14	Quad Comparator (Low Power) MC3302P	.59
LM377N	14	Dual 2-Watt Power Amp (ULN2278)	1.95	LM2902N	14	Quad (Low Power) Comparator	.59
LM380N	14	2-Watt Audio Power Amp (ULN2280)	.89	LM2903N	8	Dual Comparator	.59
LM380N-8	8	6-Watt Audio Amp	8.09	LM2904N	8	Low Power Dual Op Amp	.45
LM381N	14	Low Noise Dual Pre-Amp (112dB)	1.29	LM2907N	14	Frequency to Voltage Converter	1.95
LM382N	14	Low Noise Dual Pre-Amp (110dB)	1.29	LM2917N	8	Freq. to Voltage Converter (CS2917)	1.55
LM383T	TO-220/5	7-Watt Audio High Power Amplifier	1.49	LM2917-14N	14	Freq. to Voltage Converter	1.49
LM384N	14	5-Watt Audio Amp (ULN2281)	1.69	LM2931CT	TO-220/5	Adjustable Low Dropout Regulator	1.19
LM385Z	TO-92/3	Micropower Voltage Reference Diode	1.89	LM2935T	TO-220/5	Low Dropout Dual Regulator	1.49
LM386N-3	8	Low Voltage Audio Amp 500W/9V	.89	LM3053H	TO-5/8	Differential RF/IF Amplifier	.49★
LM387N	8	Low Noise Dual Pre-Amp	.99	LM3189N	16	FM/IF System	1.29
LM389N	18	Low Voltage Audio Amp w/XTRS	.99	MC3310P	8	FM/IF Wide Band Amp	.49★
LM391N-80	16	Audio Power Driver (=40V or +80V)	1.29	MC3346P	14	Quad Bus Transceiver	.99
LM392N	8	Op Amp and Comparator	.59	MC3486	16	Quad RS-422/423 Line Rec. w/3-State Outputs	1.49
LM393N	8	Dual Comparator	.45	MC3487	16	Quad RS-422 Line Driver w/3-State Outputs	1.49
LF398N	8	Sample and Hold Amplifier	2.39	SG3524	16	Regulating Pulse Width Modulator	1.95
LM399H	TO-5/4	Temp. Compensated Pres. Ref. (.5ppm/C°)	3.95	SG3526	16	Regulating Pulse Width Modulator	2.49★
LF411CN	8	Low Offset, Low Drift JFET Input Op Amp	.79	DS3679N	16	Hex Tri-State MOS Driver	.59
LF412CN	8	BIFET Lo-Off Set Op Amp (Dual)	1.49	LM3900N	14	Quad Amp	.99★
TL494CN	16	Switching Reg. (Pulse Width Modulated)	1.95	LM3905N	8	Precision Timer	1.19
TL496CP	8	Single Switching Regulator	1.95	LM3909N	8	LED Flasher	.89

★ Priced below our cost and will be discontinued by JAMECO after stock is sold.

LINEAR (CONTINUED)

Part No.	Pins	Function	Price	Part No.	Pins	Function	Price
LM3911N	8	Temperature Controller	\$1.19	79M05AH	TO-5/3	5V Negative Voltage Regulator (500mA)	\$.69★
LM3914N	18	Bar-Graph Display Driver	1.95	79M05C	TO-220	5V Negative Voltage Regulator (500mA)	.29★
LM3915N	18	3 DB Steps Bar-Graph Display Driver	1.95	8038CCPD	14	Precision Wave Form Generator	3.95
LM3916N	18	VU Meter Display Driver	1.95	LM13080N	8	Programmable Power Op Amp	1.19
RC4136N	14	Quad Op Amp (XR4136)	.89	LF13201N	16	Quad SPST JFET Analog Switches	2.59
RC4151NB	8	Voltage to Freq. Converter (XR4151)	.99	LM13600N	16	Dual Transconductance Amp	1.19
RC4193NB(DE)	8	Micro-Power Switching Regulator	2.95	75107N	14	Dual Line Receiver (Totem Pole Outputs)	.99
LM4250CN	8	Programmable Op Amp	1.19	75108A	14	Dual Line Receiver (Open Coll. Outputs)	.99
LM4500A	16	Hi-FM Stereo Blend Demodulator	1.19★	75109N	14	Dual Line Driver	1.09
NE5532	8	Dual Low-Noise Op Amp	.99	75110A	14	Dual Line Driver (12mA Current Switch)	1.49
NE5534	8	Low Noise Op Amp	.89	75S110	14	Dual Line Driver (12mA Current Switch)	.99★
NE5561N	8	Switched Mode Power Supply Controller	.65★	75113	16	Dual Diff. Line Driver w/3-State Outputs	.99
DS7521N	16	Core Memory Sense Amp	.25★	75114	16	Dual Diff. Line Driver (9614)	1.19
DS7524N	16	Core Memory Sense Amp	.25★	75115	16	Dual Diff. Line Receiver (9615)	1.19
DS7528N	16	Core Memory Sense Amp	.25★	75121	16	Dual Line Driver (N8T13)	1.15
DS7534N	16	Core Memory Sense Amp	.25★	75123N	16	Dual Line Driver (N8T23)	1.49
DS7535N	16	Core Memory Sense Amp	.25★	75124N	16	Triple Line Receiver (N8T24)	1.49
7805K	TO-3	5V Pos. Volt Reg. (LM340K-5) 1 Amp	1.35	75138N	16	Quad-Bus Transceiver	2.95
7806K	TO-3	6V Pos. Volt Reg. (LM340K-6) 1 Amp	1.35	75150CN	8	Dual Line Driver (RS232)	1.19
7808K	TO-3	8V Pos. Volt Reg. (LM340K-8) 1 Amp	1.35	75154N	16	Quad Line Receiver (9617)	1.39
7812K	TO-3	12V Pos. Volt Reg. (LM340K-12) 1 Amp	1.35	75174	16	Quad Diff. RS-422 Line Driver w/3-State Outputs	2.95
7815K	TO-3	15V Pos. Volt Reg. (LM340K-15) 1 Amp	1.35	75175	16	Quad Diff. RS-422A/423A Line Rec. w/3-St. Out.	2.95
7818K	TO-3	18V Pos. Volt Reg. (LM340K-18) 1 Amp	1.35	75234N	16	Dual Sense Amplifier	.69★
7824K	TO-3	24V Pos. Volt Reg. (LM340K-24) 1 Amp	1.35	75322N	14	Dual TTL to MOS Driver	1.95★
7805T	TO-220	5V Pos. Volt Reg. (LM320T-5) 1 Amp	.49	75327	16	Monolithic Quadruple Memory Core Driver	2.49★
7806T	TO-220	6V Pos. Volt Reg. (LM340T-6) 1 Amp	.49	75361	8	Dual NAND TTL-to-MOS Driver	.99★
7808T	TO-220	8V Pos. Volt Reg. (LM340T-8) 1 Amp	.49	75368N	14	Dual MOS Driver	1.49★
7812T	TO-220	12V Pos. Volt Reg. (LM340T-12) 1 Amp	.49	75450N	14	Dual Peripheral AND Driver	.59
7815T	TO-220	15V Pos. Volt Reg. (LM340T-15) 1 Amp	.49	75451CN	8	Dual Peripheral AND Driver	.49
7818T	TO-220	18V Pos. Volt Reg. (LM340T-18) 1 Amp	.49	75452CN	8	Dual Peripheral NAND Driver	.49
7824T	TO-220	24V Pos. Volt Reg. (LM340T-24) 1 Amp	.49	75452N-14	14	Dual Peripheral NAND Driver	.19★
78L05AC	TO-92	5V Positive Voltage Regulator (100mA)	.35	75453CN	8	Dual Peripheral OR Driver	.49
78L12AC	TO-92	12V Positive Voltage Regulator (100mA)	.35	75453N-14	14	Dual Peripheral OR Driver	.19★
78L15AC	TO-92	15V Positive Voltage Regulator (100mA)	.35	75454CN	8	Dual Peripheral NOR Driver	.49
78S40	16	Switching Regulator 1.5A (1.3V-40V)	1.95	75454N-14	14	Dual Peripheral NOR Driver	.19★
7905K	TO-3	5V Neg. Volt Reg. (LM320K-5) 1 Amp	1.35	75461N	8	Dual Peripheral AND Driver	.59
7906K	TO-3	6V Neg. Volt Reg. (LM320K-6) 1 Amp	1.35	75462N	8	Dual Peripheral NAND Driver	.59
7908K	TO-3	8V Neg. Volt Reg. (LM320K-8) 1 Amp	1.35	75463N	8	Dual Peripheral OR Driver	.59
7912K	TO-3	12V Neg. Volt Reg. (LM320K-12) 1 Amp	1.35	75464H	TO-5/8	Dual Peripheral NOR Driver	.39★
7915K	TO-3	15V Neg. Volt Reg. (LM320K-15) 1 Amp	1.35	75472	8	Hi-Volt., Hi-Curr. Dual Peripheral NAND Driver	.89
7918K	TO-3	18V Neg. Volt Reg. (LM320K-18) 1 Amp	1.35	75477	8	Hi-Speed Switch. Dual Peripheral NAND Driver	1.19
7924K	TO-3	24V Neg. Volt Reg. (LM320K-24) 1 Amp	1.35	75478	8	Hi-Speed Switch. Dual Peripheral OR Driver	1.29
7905T	TO-220	5V Neg. Volt Reg. (LM320T-5) 1 Amp	.59	75491N	14	Quad Segment Driver for LED Readout	.79
7906T	TO-220	6V Neg. Volt Reg. (LM320T-6) 1 Amp	.59	75492N	14	Hex Digit Driver	.79
7908T	TO-220	8V Neg. Volt Reg. (LM320T-8) 1 Amp	.59	75493N	16	4-Segment LED Driver	.89
7912T	TO-220	12V Neg. Volt Reg. (LM320T-12) 1 Amp	.59	75494N	18	6-Segment LED Driver	.89
7915T	TO-220	15V Neg. Volt Reg. (LM320T-15) 1 Amp	.59	76002ND	14	5 Watt Audio Power Amplifier	1.25★
7918T	TO-220	18V Neg. Volt Reg. (LM320T-18) 1 Amp	.59	76477	28	Complex Sound Generator	3.95
7924T	TO-220	24V Neg. Volt Reg. (LM320T-24) 1 Amp	.59	76489	16	Sound Generator Controller	8.95
79L05AC	TO-92	5V Negative Voltage Regulator (100mA)	.59				
79L12AC	TO-92	12V Negative Voltage Regulator (100mA)	.59				
79L15AC	TO-92	15V Negative Voltage Regulator (100mA)	.59				

EXAR LINEAR

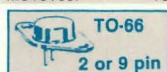
XR205	16	Waveform Generator	\$4.95	XR2212	16	Precision Phase Locked Loop	\$3.95
XR210	16	FSK Demodulator	2.95	XR2216	16	Monolithic Comander	1.59
XR215	16	High-Frequency PLL	2.95	XR2240	16	Programmable Counter/Timer	1.29
XR320	16	Precision Timer	.65★	XR2242	8	555 Timer with 8-Bit Counter	.89
XR-L555	8	Micro-Power 555 Timer	.69	XR2556	14	Dual Timing Circuit	.89★
XR1468	14	Dual = 15V Tracking Regulator	1.95	XR3403	14	Quad Op Amp	.49★
XR2206	16	Monolithic Function Generator	3.95	XR4136	14	Quad Op Amp (RC4136N)	.89
XR2207	14	Voltage-Controlled Oscillator	2.49	XR4194	14	Dual = 35V Tracking Volt Reg.	1.95
XR2208	16	Operational Multiplier	1.79	XR4202	16	Quad Programmable Op Amp	.89★
XR2209	8	Precision Oscillator	1.95	XR4212	14	Quad 741	.69★
XR2211	14	FSK Demodulator	2.95	XR4741	14	Quad Op Amp (LM348N)	.89

RCA LINEAR SERIES

CA3046N	14	Transistor Array (ULN2046)	\$.89	CA3127E	16	High Frequency N-P-N Transistor Array	\$2.39
CA3054N	14	Dual Independent Differential Amplifier	.69	CA3130E	8	Super CMOS Op Amp	1.19
CA3059E	14	Zero Voltage Switch	1.95	CA3130T	TO-5/8	Super CMOS Op Amp	1.15★
CA3065E	14	TV-FM Sound System	.69★	CA3140E	8	Bi-MOS Op Amp	.79
CA3080E	8	Operational Transconductance Amp	.99	CA3140T	TO-5/8	Bi-MOS Op Amp	.75★
CA3080H	TO-5/8	Operational Transconductance Amp	.95★	CA3146E	14	High-Voltage Transistor Array	1.19
CA3081N	16	Common Emitter NPN Array (ULN2081)	.99	CA3160T	TO-5/8	Bi-MOS Op Amp	1.15★
CA3082N	16	Common Collector NPN Array (ULN2082)	.99	CA3160E	8	Bi-MOS Op Amp	1.19★
CA3083N	16	Transistor Array NPN (ULN2083)	.99	CA3161E	16	BCD to 7-Segment Decoder Driver	1.59
CA3086N	14	Transistor Array NPN (ULN2086)	.99	CA3162E	16	Dual Slope and Rate Analog to Digital Converter (BCD output)	5.95
CA3089N	16	FM/IF System (ULN2289)	.99★	CA3401N	14	Quad Amp (LM3900N)	.59
CA3096N	16	NPN/PNP Transistor Array	1.49				

MOTOROLA MECL SERIES

MC10101P	16	Quad OR/NOR Gate	.59★	MC10117P	16	Dual 2-Wide 2-3-Input OR-AND/OR-AND-INVERT Gate	.59★
MC10102P	16	Quad 2-Input NOR Gate	.59★	MC10121P	16	4-Wide OR-AND/OR-AND-INVERT	.65★
MC10105P	16	Triple 2-3-2 Input OR/NOR Gate	.59★	MC10124P	16	Quad TTL-to-MECL Translator	1.49★
MC10107P	16	Triple 2-Input Exclusive OR/Exclusive NOR	.65★	MC10125P	16	Quad MECL-to-TTL Translator	1.49★
MC10114P	16	Triple Line Receiver	.65★	MC10131P	16	Dual Type D Master-Slave Flip-Flop	1.69★
MC10115P	16	Quad Line Receiver	.59★	MC10135P	16	Dual J-K Master-Slave Flip-Flop	1.69★
MC10116P	16	Triple Line Receiver	.59★				



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N8000 SERIES

Part No.	Pins	Function	Price
N8200	24	TTL Dual 5-Bit Buffer Register	\$1.49★
N8201	24	Dual 5-Bit Buffer Register W/D Comp.	1.49★
N8203	24	10-Bit Buffer Register W/D Comp.	1.49★
N8223	16	256-Bit Bipolar Field Prog. ROM (32x8 PROM)	1.49★
N8230	16	8-Bit Input Multiplexer (9312)	.69★
N8232	16	8-Bit Input Multiplexer	.99★
N8233	16	2-Input 4-Bit Digital Multiplexer	.99★
N8242	14	Quad Exclusive-NOR Gate	1.49★
N8250	14	Binary-to-Octal Decoder	.99★
N8251	16	BCD-to-Decimal Decoder	.99★
N8262	14	9-Bit Parity Generator/Checker	1.95★
N8266	16	2-Input 4-Bit Multiplexer	1.95★
N8267	16	2-Input 4-Bit Digital Multiplexer	2.95★
N8269	14	4-Bit Comparator (DM8200)	1.95★
N8270	14	4-Bit Shift Register (93178)	.99★
N8271	16	4-Bit Shift Register (93179)	.99★
N8273	16	10-Bit S-In P-Out Register	3.25★
N8274	16	10-Bit P-In S-Out Register	2.95★
N8275	16	Quad Bistable Latch	.99★
N8277	16	Dual 8-Bit Shift Register (9328)	.99★
N8291	14	Hi-Speed Preset. Binary Counter (74197)	.89★
N8292	14	Low Power Presettable Decade Counter	.99★
N8455	14	Dual 4-Input NAND Gate Drive	.99★
N8471	14	Triple 3-Input NAND Gate Open Collector	.99★
N8480	14	Quad 2-Input NAND Gate	.99★
N8481	14	Quad 2-Input NAND Gate Open Collector	.99★
N8731	14	Quad 2-Input Diode Expander	.99★
N8806	14	Dual 4-Input Expander	.99★
N8808	14	8-Input NAND Gate	.89★
N8815	14	Dual 4-Input NOR Gate	.99★
N8826	14	Dual High Speed JK Binary	.99★
N8828	14	Dual High Speed "D" Binary	.99★
N8859	14	Dual 4-Input NAND Buffer	.99★
N8875	14	Triple 3-Input NOR Gate	.55★
N8879	14	Triple 3-Input NAND Gate	.99★
N8881	14	Quad 2-Input NAND Gate	2.49★
N8885	14	Quad 2-Input NOR Gate	.99★
N8889	14	High Voltage Segment Driver	.99★

SP SERIES

SP301	14	Quad 2-Input Expander	.99★
SP306	14	Dual 3-Input AND Gate	.99★
SP314	14	Single 7-Input NOR Gate	.99★
SP322	16	Dual J-K Master/Slave Flip Flop	.99★
SP328	14	Dual D-type Flip Flop	.99★
SP333	14	Dual 3-Input OR Gate	.99★
SP337	14	Dual 4-Input NAND Gate	.99★
SP358	14	Quad 2-Input NAND Gate	.99★
SP380	14	Quad 2-Input NOR Gate	1.75★
SP629	14	SR/T Flip Flop	1.95★
SP631	14	Quad 2-Input Expander	1.95★
SP670	14	Triple 3-Input NAND Gate	1.95★

N8H SERIES

N8H16	14	Dual 4-Input NAND Gate	.75★
N8H21	14	Dual JK Binary Element	.75★
N8H22	16	Dual JK Binary Element	.75★
N8H80	14	Quad 2-Input NAND Gate	.75★
N8H90	14	Hex Inverter	.75★

N8T SERIES

Part No.	Pins	Function	Price
N8T01	16	Nixie Decoder/Driver	\$.99★
N8T10	16	Tri-State Quad D Bus Flip Flop	.99★
N8T13	16	Dual Line Driver (75121)	1.15
N8T14	16	Triple Line Receiver (75122)	1.49
N8T22	14	Triggerable One-Shot (9601)	.59
N8T23	16	Dual Line Driver (75123)	1.49
N8T24	16	Triple Line Receiver (75124)	1.49
N8T26	16	Tri-State Quad Bus Transceiver (MC6880A)	1.59
N8T28	16	Quad Tri-State Line Driver (MC6889)	1.75
N8T34	16	Quad Tri-State Bus Transceiver (DM8834)	.99
N8T37	16	Hex Unified Bus Receiver (DS8837)	1.49
N8T38	16	Quad Unified Bus Transceiver (DS8838)	1.29
N8T39-00	28	Bus Extender-Address Block	.99★
N8T80	14	Quad 2-Input NAND Interface Gate	.99★
N8T95	16	High Speed Hex Buffer Inverter	.89
N8T96	16	High Speed Tri-State Hex Inverter	.89
N8T97	16	High Speed Tri-State Hex Buffer	.89
N8T98	16	High Speed Tri-State Hex Inverter	.89
N8T380	14	Quad Bus Receiver with Hysteresis (DM8836)	.99

N82S SERIES

N82S10	16	1024x1 Bit RAM O.C. (93415)	1.95★
N82S23	16	256-Bit PROM O.C. (6330)	2.49
N82S25	16	64-Bit RAM (16x4 O.C.) 74S289 (3101)	1.95★
N82S62	14	9-Bit Parity Generator & Checker	1.95★
N82S100	28	Field Prog. Logic Array (16x48x8 T.S.) (93459)	12.95
N82S105	28	Bipolar Field Program. Logic Sequencer	12.95
N82S115	24	4096-Bit PROM (512x8 T.S.) 74S15	9.95★
N82S123	16	256-Bit PROM (32x8 T.S.) 74S288	2.95
N82S126	16	1024-Bit PROM (256x4 O.C.) 74S387	2.95
N82S129	16	1024-Bit PROM (256x4 T.S.) 74S287	2.95
N82S130	16	2048-Bit PROM (512x4 O.C.) 74S570	3.95
N82S131	16	2048-Bit PROM (512x4 T.S.) 74S571	3.95
N82S137	18	4096-Bit PROM (1024x4 T.S.) 74S573	5.95
N82S141	24	4096-Bit PROM (512x8 T.S.)	2.49★
N82S147	20	4096-Bit PROM (512x8 T.S.)	2.49★
N82S181	24	8192-Bit PROM (1024x8 T.S.) 87S181	9.95
N82S185	18	8192-Bit PROM (2048x4 T.S.) 87S185	9.95
N82S191	24	16,384-Bit PROM (2048x8 T.S.) 87S191	14.95

O.C. = Open Collector — T.S. = Tri-State

SHIFT REGISTERS

MM500H	TO-5/8	Dual 25-Bit Dynamic	.49★
MM503H	TO-5/8	Dual 50-Bit Dynamic	.49★
MM5013N	8	1024-Bit Dynamic/Accumulator	.99★
MM5016CN	8	500/512-Bit Dynamic	.99★
MM5027N	8	2048-Bit Dynamic	1.49★
MM5035N	20	Octal 80-Bit	2.95★
MM5056N	10	Dual 256-Bit Static	1.95★
2502	16	256-Bit Dynamic (MM1402N)	1.49★
2504V	8	1024-Bit Dynamic (1404A)	.75★
2522V	8	Dual 132-Bit Static	1.49★
2524V	8	512-Bit Dynamic (AM2807)	.99★
2525V	8	1024-Bit Dynamic (AM2808)	.99★
2528V	8	Dual 250-Bit Static	1.95★
2529V	8	Dual 240-Bit Static	1.95★
2532N	16	Quad 80-Bit Static	1.95★
3341PC	16	64 Word x 4-Bit FIFO Serial Mem. (AM3341)	5.49★

DIODE TRANSISTOR LOGIC

MC663P	14	Dual JK Flip Flop	2.95★
MC667P	14	Dual Monostable Multivibrator	2.95★
MC672P	14	Quad 2-Input NAND Gate	1.95★
MC830P	14	Dual 4-Input Gate (DM930N)	.49★
MC832P	14	Dual 4-Input Buffer (DM932N)	.49★
MC833P	14	Gate Expander (DM933N)	.49★
MC835P	14	Hex Inverter	.59★
MC836P	14	Hex Inverter (DM936N)	.59★
MC838P	14	Decade Counter (DM938N)	1.95★
MC841P	14	Hex Inverter (DM941N)	.59★
MC845P	14	Clock Flip Flop (DM945N)	.69★
MC846P	14	Quad 2-Input Gate (DM946N)	.69★

DTL & HTL SERIES

MC848P	14	Clock Flip Flop (DM948N)	.69★
MC849P	14	Quad 2-Input Gate (DM949N)	.59★
MC851P	14	Monostable Multivibrator (SW951N)	.99★
MC853P	14	Dual JK Flip Flop (DM903N)	.79★
MC855P	14	Quad JK Flip Flop (DM907N)	.79★
MC856P	14	Dual JK Flip Flop (DM9094N)	.79★
MC857P	14	Quad Buffer (DM957N)	.59★
MC861P	14	Quad 4-Input NAND/NOR Gate (DM961N)	.59★
MC862P	14	Triple 3-Input Gate (DM962N)	.59★
MC863P	14	Triple 3-Input NAND Gate (DM963N)	.59★
MC1801P	14	Dual 5-1 NAND Gate	.79★
MC1810P	14	Quad 2-Input NOR Gate	.79★
MC1818P	14	Quad 2-Input NAND Gate (O.C.)	.79★

HIGH-THRESHOLD LOGIC

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NATIONAL 8000 SERIES

Part No.	Pins	Function	Price
DM8000N	14	Dual TTL/MOS Translator	\$3.95★
DM8091N	14	Quad 2-Input NAND Buffer	.49★
DM8092N	14	Dual 5-Input NAND Gate	.49★
DM8093N	14	Tri-State Quad Buffer (74125)	.45
DM8094N	14	Tri-State Quad Buffer (74126)	.49
DM8095N	16	Tri-State Hex Buffer (74365)	.59
DM8096N	16	Tri-State Hex Inverter (74366)	.59
DM8097N	16	Tri-State Hex Buffer (74367)	.59
DM8098N	16	Tri-State Hex Inverter (74368)	.59
DM8123N	16	Tri-State Quad 2-Input Multiplexer	.99★
DM8131N	16	6-Bit Comparator	2.79
DM8136N	16	6-Bit Comparator	2.79
DM8160N	16	6-Bit Comparator	2.79
DM8210N	14	8-Channel Digital Switch	.89★
DM8211N	16	8-Channel Digital Switch	.89★
DM8214N	16	Tri-State Dual 4/1 Multiplexer	1.49★
DM8219N	24	Tri-State Version of 74150	1.49★
DM8220N	14	Parity Generator/Checker	1.79★
DM8230N	16	Tri-State Demultiplexer	.99★
DM8300N	16	4-Bit Shift Register (74195) 9300N	.39★
DM8520N	16	Modulo-N-Divider	5.95★
DM8546N	16	Tri-State 8-Bit Universal I/O Shift Register	2.95★
DM8553N	16	Tri-State 8-Bit Latch	1.95★
DM8601N	14	Retriggerable Mono. Multivibrator (9601N)	.59
DM8602N	16	Dual One-Shot (9602N)	.75
DM8613N	16	Quad Gated Flip-Flops	1.49★
DS8626N	8	120MHz Divide-by-40 Prescaler	2.95★
DS8629N	8	120MHz Divide-by-100 Prescaler	3.49★
DS8664N	24	14-Digit Decoder/Driver/Low Batt. Indicator	2.95★

Part No.	Pins	Function	Price
DS8665N	24	4-Digit Decoder/Driver (High Drive)	\$2.95★
DS8666N	24	14-Digit Decoder/Driver (POS Systems)	2.95★
DM8681N	14	Presetable Binary Counter	.99★
DS8810N	14	Quad 2-Input TTL-MOS Interface Gate (7426)	.29★
DS8811N	14	Quad 2-Input TTL-MOS Interface Gate	.49★
DS8819N	14	Quad 2-Input TTL-MOS-Gate	.49★
DS8820N	14	Dual Line Receiver (75182)	1.25
DS8830N	14	Dual Differential Line Driver (75183)	1.19
DS8832N	16	Tri-State Line Driver	1.49★
DS8833N	16	Tri-State Quad Transceiver (Non-Inverting)	1.95
DS8834N	16	Quad Tri-State Transceiver (N8T34)	.99
DS8835N	16	Quad Tri-State Transceiver (Inverting)	1.95
DS8836N	14	Quad NOR Unified Bus Receiver (N8T380)	.99
DS8837N	16	Hex Unified Bus Receiver (N8T37)	1.49
DS8838N	16	Quad Unified Bus Transceiver (N8T38)	1.29
DS8856N	16	BCD to 7-Segment LED Driver (N8T51)	1.49★
DS8864N	22	9-Digit MOS to LED Cathode Driver	.99★
DS8865N	18	8-Digit MOS to LED Cathode Driver	.49★
DS8867N	18	8-Seg. MOS to LED Anode Driver	1.49★
DS8869N	16	Hex LED Lamp Driver (True)	1.39★
DS8872N	22	9-Digit MOS to LED Cathode Driver	1.39★
DS8873N	22	9-Digit LED Driver, Low Batt. Ind. (Cathode)	1.75★
DS8877N	14	6-Digit LED Driver (50mA Sink) (Cathode)	1.19★
DS8880N	16	High Volt 7-Segment Decoder/Driver (75480)	1.35★
DS8884N	18	High Volt 7-Seg. Decoder/Driver (Panaplex)	1.95★
DS8887N	18	8-In 8-Out Panaplex Anode Driver	1.39★
DS8890N	14	TV Vert. Count Down	.49★
DS8895N	16	Quad LED Segment Driver	.99★

FAIRCHILD 9000 SERIES

9000	14	JK Master/Slave Flip-Flop (74104)	\$.29★
9003	14	Triple 3-Input NAND Gate	.29★
9006	14	Dual 4-Input Expander	.29★
9300	16	4-Bit Shift Register (74195)	.39★
93L00	16	4-Bit Shift Register (74L195) Low Power	.49★
93L01	16	1 of 10 Decoder (Low Power)	.49★
9304	16	Dual Full Adder	.79★
9312	16	8-Input Multiplexer (DM8312N)	.69
93L12	16	8-Input Multiplexer (Low Power)	.89
9314	16	4-Bit Latch	1.95★
9316	16	4-Bit Binary Counter (74161)	.59★
93L16	16	4-Bit Binary Counter (Low Power)	.89★
9321	16	Dual 1 of 4 Decoder	.79★
93L21	16	Dual 1 of 4 Decoder (Low Power)	.49★
93L23	16	Quad 2-Input Multiplexer (Low Power) 81L23	1.19★
9324	16	5-Bit Comparator	.99★

93L24	16	5-Bit Comparator (Low Power)	\$.99★
9328	16	Dual 8-Bit Shift Register (N8277)	.99★
93L28	16	Dual 8-Bit Shift Register (Low Power)	1.19★
9334	16	8-Bit Addressable Latch (74259)	1.95
9368	16	FND 70 Driver/Latch	2.95
9374	16	LED Digital Driver	2.95
9401	14	TTL/LSI Cycle Redundancy Check (MC8503)	1.95
9601	14	Retriggerable Monostable Multivibrator (8601)	.59
9602	16	Dual Monostable Multivibrator (8602)	.75
96L02	16	Dual Monostable Multivibrator (Low Power)	1.49
96S02	16	Dual Monostable Multivibrator (Schottky)	1.95
96LS02	16	Dual Mono. Multivibrator (Low Power-Schottky)	1.95
93S151	16	8-Input Multiplexer	.69★
93S158	16	Quad 2-Input Multiplexer (Inverter)	.69★
93L421	16	256-Bit Tri-State RAM (Low Power) O.C.	1.95★
93451	24	1024x8-Bit PROM (Tri-State) DM87S181N	2.95★

DT1050 Digitalker™

**Applications: Teaching Aids • Appliances • Clocks
Automotive • Telecommunications • Language Translations**

The DT1050 is a standard DIGITALKALKER kit encoded with 137 separate and useful words, 2 tones, and 5 different silence durations. The words and tones have been assigned discrete addresses, making it possible to output single words or words concatenated into phrases or sentences. The "voice" output is a highly intelligible male voice. Female and children's voices can be synthesized. Vocabulary is chosen so that it is applicable to many products and markets.

The DT1050 consists of a Speech Processor Chip, MM54104 (40-pin) and two (2) Speech ROMs, MM52164SSR1 and MM52164SSR2 (24-pin) along with a Master Word List and a recommended schematic diagram on the application sheet.

Part No.	Description	Price
DT1050	Digitalker™ (3 Chips and Data)	\$24.95
MM54104	Speech Processor Chip.	\$12.95
CY4A	Required 4MHz Crystal for System Timing. . . .	\$ 1.19
DT1057	Expands the DT1050 vocabulary from 137 to over 260 words — includes 2 ROMs and specs. . .	\$11.95



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A complete 6-channel digital encoder and RF transmitter; low power, at frequency of 27MHz or 49MHz, a field strength of 10,000µV/meter at 3 meters. 9V operation on chip RF oscillator/transmitter, on chip 4.6V regulator. Up to 80MHz carrier frequency operation.

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SRX1505 49.890MHz Crystal (LM1871N). \$1.49

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Part No.	Description	Price
K4028DZ	(Coil — 10K 6T 26PF @ 49MHz).	\$1.95
K4635BJE	(Coil — 10K 1T 31PF @ 49MHz).	\$1.95
202313NO	(X-former-10E2C 131T @ 455KHz). . . .	\$1.95
402503NO	(X-former-10E2C 98T @ 455KHz). . . .	\$1.95

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RAMS, PROMS and EPROMS CROSS-REFERENCE GUIDE

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	National Semiconductor	Access Time NS	Pins	Org.	AMD	FSC	FUJ	HAR	HIT	INT	MOSTEK	MOT	MMI	NEC	SIG	SYN	TI	TOSH	INTERSIL
STATIC RAMS	MM1101N	1000	16	256x1	1101A					1101A	Mk4007				2501				7501
	MM2101A	350	22	256x4	2101A	3538		HM6501		P2101A				UPD2101A	2101A	SY2101			7101
	MM2101A-2	250	22	256x4	2101-1					P2101A-2				UPD2101AL	2101A-2				
	MM2101A-4	450	22	256x4	2101-2	3538-1	MB8101			P2101A-4				8101	2101A-4				
	MM2102AN	350	16	1024x1	9102CPC	2102F				P2102A				UPD2102A	21F02	SY2102A			
	MM2102AN-2	250	16	1024x1	9102CPC	2102F-2				P2102A-2					21F02-2				
	MM2102AN-4	450	16	1024x1	9102BPC					P2102A-4	MK4102			UPD2102	21F02-4		TMS4033	TM313	TM7552
	MM2102AN-L	350	16	1024x1	9102CPC	2102LFPC				P2102AL					21L02				
	MM2102AN-2L	250	16	1024x1	8102APC					P2102AL-2									
	MM2102AN-4L	450	16	1024x1	9102BPC	2102LPC				P2102AL-4				21L02-1	SY21L02B				
	MM2111N	450	18	256x4	9111		MB8111			P2111A-4		M6811		UPD2111A	2111	SY2111	TMS4042-2	TM311	7111
	MM2112N	450	16	256x4	9112					P2112A-4					2112	SY2112	TMS4043-2	TM312	
	MM2114N	450	18	1024x4	9114BPC	2114			HM472114A-4	P2114	MK4114-5	MCM2114P45		UPD2114	2614-45	SY2114	TMS4045-45	TM314A	IM2114
	MM2114B-2	250	18	1024x4	9114BPC	2114-2	MB8114E		HM472114A-2	P2114A-4	MK4414-3	MCM2114P20		2114-2		SY2114-2	TMS4045-20	TM314A-1	IM2114-2
	MM2114FL	450	18	1024x4	9114BPC	2114L			HM472114-4	P2114L		MCM2114P45		UPD2114L	2614-20		TMS4045-45	TM314AL-1	IM2114L
	MM2114N-2L	200	18	1024x4	9114BPC	2114L-2	MB8114EL	HM6514-9		P2114AL-4		MCM2114P20		UPD2114L-3		SY2114L-2	TMS4045-20	TM314AL-1	IM2114L-2
	MM2141N-3	150	18	4096x1						P2141-3									
	MM2147N	70	18	4096x1	9147-70		MBM2147E		HM4847	P2147H	MK2147N-70	M2147P70		UPD2147D2		SY2147	TMS2147-7	TM315D	2147
	NMC2148N	70	18	1024x4	9148-70	93475	MBM2148		HM6148	P2148H						SY2148			
	MM5257N	450	18	4096x1	4044-45		MBM4044			P2141		M2141P45		UPD4104	2613-45		TMS4044-45N		TM7141
	*HM6116P-2	120	24	2048x8			MB8416A-12	HM65162	HM6116P-2			MCM6116-12							
	*HM6116LP-2	120	24	2048x8			MB8416A-12L		HM6116LP-2			MCM6116-12							
	*HM6116P-3	150	24	2048x8			MB8416A-15		HM6116P-3			MCM6116-15							
	*HM6116LP-3	150	24	2048x8			MB8416A-15L		HM6116LP-3			MCM6116-15							
	*HM6116P-4	200	24	2048x8		F3528		MB8416	HM6116P-4			MCM6116-20		UPD446		SY2128	TMS4016	TC5517A	
	*HM6264P-15	150	28	8192x8			MB8464-15		HM6264P-15					UPD4364-15				TC5564-1	
	DM7489N	60	16	16x4	3101	7489				P3101		M4064	6550	UPB2089	74S89		7489		5501
	MM74C920	250	22	256x4	5101					P5101L		M45101		UPD5101				TC5101	6551IDF
	DM74S189N	35	16	16x4	27503	93405	MB8411	HM6551-9	HM6518-5				6561		74S189		74S189		6551BCDN
	DM74S289N	35	16	16x4	27502	93404			74S289	3101A			6560	UPB2289	82S25		74S289		
DYNAMIC RAMS	MM5270N	250	18	4096x1	9050									UPD418-1	2660	SY5270	TMS4050		7270-11
	MM5261N	300	18	1024x1		F1103				P1103					1103-1				
	MM5280N	200	22	4096x1	9060	93454	MB8107H			P2107H		M6605AL	2180	UPD411A-2	2680	SY5280	TMS4060-2		7280
	MM5290N-2	150	16	16384x1	AM9016FPC	F16K-2PC	MB8116H		HM4716A-2	P2117-2	MK4116N-2	M4116P-15		UPD416C-3	2690-2		TMS4116N-15	TMM116P-2	7116CPE-2
	MM5290N-3	200	16	16384x1	9016EPC	F16K-3PC	MB8116E		HM4716A-3	P2117-3	MK4116N-3	M4116P-20		UPD416C-2	2690-3		TMS4116N-20	TMM116P-3	7116CPE-3
	MM5290N-4	250	16	16384x1	9016DPC	F16K-4PC	MB8116N		HM4716A-4	P2117-4	MK4116N-4	M4116P-25		UPD416C-1	2690-4		TMS4116N-25	TMM116P-4	7116CPE-4
	MM5298N	200	16	8192x1						P2109	MK4108						TMS4108-20		
	NMC4164-15	150	16	65536x1		F64K-15	MB8264-15		HM4864-2	P2164A-15	MK4564-15	MCM6665-15		UPD4164-3			TMS4164-15	TMM1164	
	NMC4164N-20	200	16	65536x1		F64K-20	MB8264-20N		HM4864-3	P2164A-20	MK4564-20	MCM6665-20		UPD4164-2			TMS4164-20	TMM1164C-4	
	*TMM41256C-15	150	16	262144x1			MB81256-15		HM50256-15			MCM6256-15		UPD41256-15			TMS4256-15	TMM11256C-15	
	*TMM41256C-20	200	16	262144x1			MB81256-20		HM50256-20			MCM6256-20		UPD41256-20			TMS4256-20	TMM11256C-20	
EPROMS	MM1702A	850	24	256x8	1702A					1702A	MK3702				1702				
	MM2708Q	450	24	1024x8	AM2708	F2708	MB8518H		HN462708	D2708	MK2708	2708		UPD2708	2708		TMS2708-45	TMM322	IM7708
	MM2716Q	450	24	2048x8	AM2716	F2716	MBM2716		HN462716	D2716	MK2716-8	MCM2716		UPD2716		SY2716	YMS2516	TMM323D	
	MM2716-1	350	24	2048x8	AM2716-1	F2716-1	MBM2716H	HM6716-9		2716-1	MK2716-6	MCM2716-35				SY2716-1	TMS2516-35	TMM323D-1	
	NMC2532Q	450	24	4096x8					HN462532			MCM2532							
	NMC2732Q	450	24	4096x8	AM2732		MB8532		HN462732	D2732				UPD2732				TM2732	
	2732A-3	300	24	4096x8			HM2732A-30			2732A-30									
	2764-4	450	28	8192x8	AM2764-4					2764-4	MK2764							TMS2764	
	2764-30	300	28	8192x8			MBM2764-30			2764-3									
	*27128-25	250	28	16384x8	AM27128-25		MBM27128-25		HN4627128-25	27128				UPD27128				TMS27128-25	
	*27256-25	250	28	32768x8	AM27256-25		MBM27256-25		HN4627256-25	27256								TC5256-25	
	DM74S188N	35	16	32x8	27S18		MB7058	HM7602					6330-1		82S23		TBP185A030N		5600
PROMS	DM74S287N	50	16	256x4	27S21	93427	MB7052	HM7611		3621			6301-1		82S129		TBP24S10		5623
	DM74S288N	35	16	32x8	27S19		MB7051	HM7603					6331-1		82S123		TBP185030N		5610
	DM74S387N	50	16	256x4	27S20	93417	MB7057	HM7610		3601-1	MK4006		6300-1	UPB403	82S126		TBP24SA10		5603
	DM74S471N	50	20	256x8									6309-1				TBP28L22N		
	DM74S472N	60	20	512x8	27S29			HM7649					6349-1	UPB425	82S147		TBP28SA42N		
	DM74S473N	60	20	512x8	27S28			HM7648					6348-1	UPB405	82S146		TBP28SA42		
	DM74S474N	65	24	512x8	27S31			HM7641		3624		7641	6341-1	UPB425	82S141		TBP18546		5625
	DM74S475N	65	24	512x8	27S30			HM7640		3620		7640	6340	UPB405	82S140		TBP28SA46		5605
	DM74S570N	55	16	512x4	27S12	93436	MB7058	HM7620		3602		7620	6302-1		82S139		74S270		5604
	DM74S571N	55	16	512x4	27S13	93446	MB7053	HM7621		3622		7621	6306-1		82S131		74S370		5624
	DM74S572N	60	18	1024x4	27S32	93452	MB7059	HM7642		3605		7642	6352-1	UPB406	82S136		24SA41		5606
	DM74S573N	60	18	1024x4	27S33	93453	MB7122	HM7643		3625		7643	6353-1	UPB426	82S137		24S41		5626
	DM77S180N	40	24	1024x8	27S180	93450		HM7680		3608		7680	6380-1	UPB408	82S180		28SA86		56S08
	DM77S181N	40	24	1024x8	27S181	93451	MB7132	HM7681		3628		7681	6381-1	UPB428	82S181		24S86		56S18
	DM77S184N	40	18	2048x4	27S184	93514		HM7684				7684	635840		82S184		24S81		
	DM77S185N	40	18	2048x4	27S185	93515	MB7128	HM7685				7685	635841		82S185		24S81		
	DM77S190N	40	24	2048x8	27S190			HM76160		3606		7660	6351680		82S190		28S166		
	DM77S191N	40	24	2048x8	27S191			HM76161		3636		7661	6351681		82S191		28S166		
	DM77S192N	40	24	512x8	27S15			HM7647R						UPB425	82S115				

*NOT A NSC PART NUMBER

This listing is based on manufacturer's current data. For your requirements, we recommend consulting manufacturer's Data Sheets before designing into your circuit.

MEMORIES AND EXPANSION KITS

STATIC RAMS

Part No.	Pins	Function	Price
TMM2016-12	24	2048x8 120ns	\$1.69
2101	22	256x4 450ns (8101)	1.95
2102	16	1024x1 350ns	.89
2102-2L	16	1024x1 250ns Low Power (91L02)	1.49
2111	18	256x4 450ns (8111)	2.49
2112	16	256x4 450ns MOS	2.49
2114N	18	1024x4 450ns	.99
2114N-2	18	1024x4 200ns	1.05
2114N-L	18	1024x4 450ns Low Power	1.09
2114N-2L	18	1024x4 200ns Low Power	1.49
21C14	18	1024x4 200ns (CMOS)	.49★
2116N-25L	24	2048x8 250ns LP NMOS	3.49★
2125A	16	1024x1 45ns (High Speed)	2.95
2147HN	18	4096x1 70ns	3.95
2147HN-3	18	4096x1 55ns	4.29
2148HN	18	1024x4 70ns	4.29
2148HN-3	18	1024x4 55ns	4.95
2149	18	1024x4 45ns	4.95
27LS00	16	256x1 80ns (74S200)	2.95★
TMS40L47-45	20	1024x4 450ns	.99★
5101	22	256x4 450ns (CMOS)	3.95
MM5257N	18	4096x1 450ns	2.95★
6116P-3	24	2048x8 150ns (16K) CMOS	1.79
6116P-4	24	2048x8 200ns (16K) CMOS	1.69
6116LP-3	24	2048x8 150ns (16K) LP CMOS	1.85
6116LP-4	24	2048x8 200ns (16K) LP CMOS	1.75
6264P-12	28	8192x8 120ns (64K) CMOS	4.69
6264P-15	28	8192x8 150ns (64K) CMOS	4.49
6264LP-12	28	8192x8 120ns (64K) LP CMOS	4.79
6264LP-15	28	8192x8 150ns (64K) LP CMOS	4.59
6514	18	1024x4 350ns (CMOS) (UPD444C) (TC5514)	4.49
7489	16	16x4 50ns (P3101)	1.95
74C920	22	256x4 250ns (6551-9)	9.95★
74C921	18	256x4 250ns	9.95★
74C930	18	1024x1 250ns (6518-5)	9.95★
74S189	16	16x4 35ns (93405)	1.95
74S289	16	16x4 35ns (P3101A)	2.95
82S10	16	1024x1 50ns O.C. (93415)	1.95★
82S25	16	16x4 50ns O.C. (74S289)	1.95★

DYNAMIC RAMS

1103	18	1024x1 300ns	\$6.99★
MK4027N-4	16	4096x1 250ns (UPD414)	.89★
4116N-15	16	16,384x1 150ns (MM5290N-2)	.45
4116N-20	16	16,384x1 200ns (MM5290N-3)	.39
4128-20	16	131,072x1 200ns (Piggyback)	4.95
4164N-150	16	65,536x1 150ns	.89
4164N-200	16	65,536x1 200ns	.79
TMS4416-12	18	16,384x4 120ns	4.95
MM5261N	18	1024x1 300ns	.25★
MM5262N	22	2048x1 365ns	.25★
MM5270N	18	4096x1 250ns	1.95★
MM5280N	22	4096x1 200ns (P2107B) TMS 4060	1.95★
MM5298N-3A	16	8192x1 (Lower 1/2 of 4116N-4)	.19★
8118	16	16,384x1 120ns (Req. +5V Sgl. Pwr. Sup. Only)	1.95
41256-150	16	262,144x1 150ns	3.29
41256-200	16	262,144x1 200ns	3.19
50464-15	18	65,536x4 150ns (41254) (41464)	7.95

EPROMS

Part No.	Pins	Function	Price
1702A	24	256x8 2K (1μs)	\$3.95★
TMS2516	24	2048x8 16K 450ns (25V)	3.49
TMS2532	24	4096x8 32K 450ns (25V)	3.95
TMS2564	28	8192x8 64K 450ns (25V)	8.95
2708	24	1024x8 8K 450ns	3.95
TMS2716	24	2048x8 16K 450ns (-5V, +5, +12V)	6.49
2716	24	2048x8 16K 450ns (25V)	2.49
2716-1	24	2048x8 16K 350ns (25V)	2.95
27C16	24	2048x8 16K 450ns (25V) CMOS	9.95
2732	24	4096x8 32K 450ns (25V)	2.49
2732A-20	24	4096x8 32K 200ns (21V)	3.95
2732A-25	24	4096x8 32K 250ns (21V)	2.95
2732A-45	24	4096x8 32K 450ns (21V)	2.75
27C32	24	4096x8 32K 450ns (25V) CMOS	10.95
27C32A-30	24	4096x8 32K 300ns (21V) CMOS	11.95★
2758	24	1024x8 8K 450ns (Single +5V)	3.95★
2764-20	28	8192x8 64K 200ns (21V)	3.95
2764-25	28	8192x8 64K 250ns (21V)	2.95
2764-45	28	8192x8 64K 450ns (21V)	2.19
2764A-25	28	8192x8 64K 450ns (12.5V)	2.95
27C64	28	8192x8 64K 450ns (21V) CMOS	6.95
27128-25	28	16,384x8 128K 250ns (21V)	2.95
27128A-25	28	16,384x8 128K 250ns (12.5V)	4.95
27256-25	28	32,768x8 256K 250ns (14V)	7.95
27C256-25	28	32,768x8 256K 250ns (14V) CMOS	13.95
68764	24	8192x8 64K 450ns (25V)	15.95
68766	24	8192x8 64K 350ns (25V)	16.95
EWC-1	1/2" x 3/4" Rectangular EPROM Window Covers (42 ea. Labels)		1.49

EEPROMS

2816	24	2048x8 16K 350ns (21V) 5V Read Only	\$4.95
2816A	24	2048x8 16K 350ns (9V-15V) 5V Read/Write	8.95

PROMS

5300-1J	16	256x4 O.C.	\$2.95★
6331-1J	16	32x8 T.S.	2.95★
74S188	16	32x8 O.C. (TBP18SA030N)	1.75
74S287	16	256x4 T.S. (TBP24S10N)	1.69
74S288	16	32x8 T.S. (TBP18S030N)	1.69
74S387	16	256x4 O.C. (TBP24SA10N)	1.69
74S471	20	256x8 T.S. (TBP28L22N)	4.95
74S472	20	512x8 T.S. High Speed	3.49
74S473	20	512x8 O.C. (TBP28SA42N)	2.95
74S474	24	512x8 T.S. (TBP18S46)	3.49
74S475	24	512x8 O.C.	3.49
74S476	18	1024x4 T.S. (TBP24S41) 4K-Bit	4.95
74S570	16	512x4 O.C.	2.95
74S571	16	512x4 T.S.	2.95
74S572	18	1024x4 O.C.	3.49
74S573	18	1024x4 T.S.	2.95
DM87S184N	18	2048x4 O.C. (82S184)	4.95★

ROMS

2513(CGR001)	24	Character Generator Upper Case (2140)	\$9.79★
2513(CGR005)	24	Character Gen. Lower Case (3021)	9.95★
MCM66750P	24	128x9x7 Alpha. Control Char. Gen. (MC66575)	12.95★

COMMODORE CUSTOM ROMS — See Page 77

TRS-80's
IBM

COMPUTER MEMORY EXPANSION KITS

APPLE
NEC, ETC.

TRS-80 MODEL I, III

Each Kit comes complete with 8-MM5290 (UPD416/4116) 16K Dynamic RAMs and documentation for conversion. Model I: 16K equipped with Expansion Interface can be expanded to 48K with 2 Kits. Model III: Can be expanded from 16K to 48K using 2 Kits. Each Kit will expand computer by 16K increments.

TRS-16K3	200ns (Model III)	\$5.95
TRS-16K4	250ns (Model I)	\$5.49

UPDATE!

TRS-80 MODEL IV, 4P

UPDATE!

Easy to install Kits come complete with: TRS-64K-2 (8 each 4164N-20 (200ns) 64K Dynamic RAMs); TRS-64K-2PAL (8 each 4164's plus PAL chip) and documentation for conversion.

TRS-64K-2	Expands Model IV from 16K-64K or Model IV & 4P from 64K-128K (w/Mem. Disk)...	\$9.95
TRS-64K-2PAL	Expands Model IV (w/Black & White Monitors only) from 64K-128K.	\$29.95

TRS-80 COLOR AND COLOR II

Easy to install Kit comes complete with 8 each 4164N-20 (200ns) 64K Dynamic RAMs and documentation for conversion. Converts the TRS-80 Color Computers with D, E, ET, F and NC circuit boards to 32K. Also converts TRS-80 Color Computer II to 64K. Flex DOS or OS-9 required to utilize full 64K RAM on all computers.

TRS-64K-2		\$9.95
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IBM PC, PC XT & COMPATIBLES

The Kit is simple to install—just insert the nine 64K RAM chips in the provided sockets and set the two groups of switches. Complete conversion documentation included.

IBM64K (Nine 200ns 64K RAMs)	\$7.95
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★ Priced below our cost and will be discontinued by JAMECO after stock is sold.

TANDY 200

NEW! Easy to install module plugs right into the socket increasing memory in 24K increments. Complete with module and documentation for installation.

M200R (Tandy 200 Expansion) ... \$99.95 ea. or 2/\$189.95

UPDATE!

TRS-80 MODEL IV, 4P

UPDATE!

• TRS-80 MODEL 100 • NEC • OLIVETTI

Easy to install Module plugs right into the socket increasing memory in 8K increments. Three modules will increase your memory to its full capacity. Complete with module and documentation for installation.

M1008K (TRS-80 Model 100 Expansion)	.....	\$29.95 ea. or 3/\$79.95
NEC8KR (NEC PC-8201A)	.....	\$29.95 ea. or 3/\$79.95
OM108K (Olivetti M10)	.....	\$29.95 ea. or 3/\$79.95

APPLE II, II+ and IIe

JE860	16K RAM Card	.....	See ... \$ 39.95
JE864	64K RAM/80-Column Card	.....	Inside ... \$ 69.95
JE868	128K RAM Card	.....	Back Cover \$119.95

IBM PC AT

Each Kit comes complete with nine 128K Dynamic RAMs and documentation for conversion.

IBM128K (Nine 200ns 128K RAMs)	\$43.95
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MICROPROCESSORS AND MISCELLANEOUS COMPONENTS

5000, 50000 SERIES

Part No.	Pins	Function	Price
MM5309	28	6-Digit with Reset Clock Chip	\$4.95
MM5311	28	6-Digit with BCD Clock Chip	4.95
MM5312	24	4-Digit Any Readout Clock Chip	4.95★
MM5314	24	6-Digit LED/Incandescent Readout Clock Chip	4.95
MM5316	40	Alarm Set/Snooze Alarm Timer Clock Chip	5.95★
MM5318	28	Clock/TV Character Generator Clock Chip	7.95★
MM5321N	16	TV Camera Sync. Generator	9.95★
MM5330N	16	4½-Digit DPM Logic Block	3.95★
MM5369AA/N	8	Programmable Oscillator/Divider (60Hz)	1.79
MM5369EST	8	Programmable Oscillator/Divider (100Hz)	1.95
MM5378	18	Digital Auto Clock - VF	1.95★
MM5387	40	4-Dig. Alarm Clock-Dir. LED Drive (1998/3817)	2.95
MM5402	40	Digital Alarm Clock - LED	2.95
MM5430N	40	AM/FM Radio Frequency Display	3.95
MM5450N	40	34-Segment LED Display Driver	3.95
MM5452N	40	32-Segment LCD Display Driver	3.95
MM5725	28	8-Digit 4-Function Calculator Chip	.99★
MM5837N	8	Digital Noise Source	2.49
MK50240N	16	Top Octave Frequency Generator	7.95★
MK50250	28	4/6 Digit Alarm with Snooze & AM/PM (Clock)	6.95★
MM52116FKW	24	Character Generator (128 Characters)	2.95★
MM53130N	18	Touch Tone Dialer	4.95
MM53190N	20	Push Button Pulse Dialer	3.95
MM53200N	18	Digital Code Trans/Rec. (Garage Door Type)	3.95
MM54104N	40	Speech Processor Chip	12.95
MM54240N	24	Asynchronous Transmitter/Receiver	5.95
MM55121N	16	Ph. Lock Lp. Freq. Syn. (Serial Data)	3.95★
MM58167AN	24	Microprocessor Real Time Clock	8.95
MM58174AN	16	Microprocessor Compatible Clock	8.95
MM58274N	16	Microprocessor Compatible Real Time Clock	6.95
M558321RS	18	Microprocessor Real-Time Clock/Calendar (CMOS)	6.95

MISCELLANEOUS CIRCUITS

TMS0128NC	28	4-Bit Microcomputer Calculator Chip	\$.99★
COP402N	40	Microcont. w/64-dig. Ram & Dir. LED Drive	3.95★
COP402MN	40	Microcont. w/64-dig. Ram & Dir. LED Drive with N Buss. Int.	3.95★
COP470N	20	32-Seg. VAC Fluorescent Driver	2.95★
UC1671B	40	Astro-Full Duplex Synch. or Asynch.	12.95★
WD1691V	20	Floppy Support Logic	6.95★
BR1941M	18	Dual Baud Rate Generator (COM5016)	3.95★
AM2812PC	28	32x8 First In/First Out Memory	6.95★
AM29072C	20	Quad Bus Transceiver w/Interface Logic	3.95★
D3242	28	Address Multiplexer & Refresh Counter	6.95
MC3705D	16	8-Channel Multiplexer (MM4503CD)	2.95★
TMS5501	40	Synchronous Data Interface (SIRC)	14.95★
SC42549P	14	CMOS Smoke Detector Chip	.69★
76477	28	Complex Sound Generator	3.95
76489	16	Sound Generator Controller	8.95
TMS99532NL	18	FSK Modem-Bell 103 Comp. (300 Bits/s)	9.95
MK146818	24	Real Time Clock Plus Ram	5.95
AY-3-8500-1	28	TV Game Chip & Crystal (2.01MHz)	6.95★

**WESTERN
DIGITAL**



Floppy Support Logic

The WD1691 F.S.L. has been designed to minimize the external logic required to interface the 179K Family of Floppy Disk Controllers to a drive. With the use of an external VCO, the WD1691 will generate the RCLK signal for the WD179X, while providing an adjustment pulse (PUMP) to control the VCO frequency. VFOE/WF de-multiplexing is also accomplished.

WD1691V..... \$6.95★

Dual Baud Rate Clock

The BR1941 is a combination Baud Rate Clock Generator and Programmable Divider. It is manufactured in N-channel MOS using silicon gate tech. This device is capable of generating 16 externally selected clock rates whose frequency is determined by either a single crystal or an externally generated input clock. The BR1941 is a programmable counter capable of generating a division from 2 to (2¹⁶-1).

BR1941M..... \$3.95★

CONVERTERS

Part No.	Pins	Function	Price
ADC0800PCD	18	8-Bit A/D Converter (±1 LSB)	\$14.49
ADC0801LCN	20	8-Bit A/D Converter (¼ LSB)	14.95
ADC0803LCN	20	8-Bit A/D Converter (±½ LSB)	5.95
ADC0804LCN	20	8-Bit A/D Converter (1 LSB)	3.49
ADC0808CCN	28	8-Bit A/D Converter w/8-Channel Analog	8.95
ADC0809CCN	28	8-Bit A/D Converter (8-Channel MPX)	3.95
ADC0816CCN	40	8-Bit A/D Converter w/16-Channel Analog	14.95
ADC0817CCN	40	8-Bit A/D Converter (16-Ch. MPX) (74C948-1)	8.95
ADC0832BPM	8	8-Bit Serial I/O A/D Conv. (2.4 or 8-Channel Mult.)	4.95
DAC0800LCN	16	8-Bit D/A Converter (±1 LSB)	3.95
DAC0806LCN	16	8-Bit D/A Converter (0.78% Lin.) (MC1408P6)	1.95
DAC0807LCN	16	8-Bit D/A Converter (MC1408P7)	1.49
DAC0808LCN	16	8-Bit D/A Converter (MC1408P8)	1.95
DAC0830LCN	20	8-Bit UP D/A Converter (.05% Linear)	5.95
DAC0831LCN	20	8-Bit UP D/A Converter (.10% Linear)	4.49
DAC1000LCN	24	10-Bit D/A Conv. Micro. Comp. (.05%)	4.95
DAC1008LCN	20	8-Bit D/A Conv. Micro. Comp. (.20%)	7.95
DAC1020LCN	16	10-Bit D/A Converter (0.05% Lin.)	7.95
DAC1022LCN	16	10-Bit D/A Converter (0.20% Lin.)	5.95
DAC1222LCN	18	12-Bit D/A Converter (0.20% Lin.)	6.95
DAC1230LCD	20	12-Bit UP D/A Converter (.012%)	14.95
DAC1231LCD	20	12-Bit UP D/A Converter (.024%)	13.95
AD7523JN	16	8-Bit Multiplying D/A Converter	4.95

CRT, VIDEO & GRAPHICS DISP. CONTROLLER CHIPS

SCN2674BC4N40	40	Advanced Video Display Controller	\$24.95
6545	40	CRT Controller (CRTC)	4.95
6845	40	CRT Controller (CRTC)	4.95
68B45	40	CRT Controller (CRTC) 2MHz	6.95
UPD7220D	40	Graphics Display Controller	14.95
8275	40	Programmable CRT Controller	14.95★

DISK DRIVE FORMATTER/CONTROLLER CHIPS

D765AC	40	Sgle/Dble Density Floppy Disk Cont. (8272)	\$4.95
1691V	20	Floppy Support Logic	6.95★
1771N-1	40	Floppy Disk Controller (FD1771)	4.95★
1791	40	Single/Double Density (Inverted) (Int. Clk. Div.)	9.95★
1793	40	Single/Double Density (True) (Int. Clk. Div.)	9.95★
1795	40	Single/Double Density Side Select (Inv.)	12.95★
1797	40	Single/Double Density Side Select (True)	12.95★
2791	40	Single/Double Density (Inv.) (Int. Clk. Div.)	19.95
2793	40	Single/Double Density (True) (Int. Clk. Div.)	19.95
2795	40	Single/Double Density Side Select (Inv.)	29.95
2797	40	Single/Double Density Side Select (True)	29.95
MC3470P	18	Floppy Disk Read Amp System	1.95
6843	40	Programmable Floppy Disk Controller	19.95
8272	40	Sgle/Dble Density Floppy Disk Cont. (D765AC)	4.95

UART'S

2651	28	Communication Chip (USART)	\$4.95
8250(B)	40	ACE (IBM PC or XT Software Compatible)	5.95
8251A	28	Programmable Comm. I/O (USART)	2.25
AY-3-1015D	40	25K BAUD UART	4.95
AY-5-1013A	40	30K BAUD (TR1602) (AMI S1602)	3.95

GENERATORS

LM566N	8	Function Generator	\$1.39
BR1941M	18	Dual Baud Rate Generator (Com. 5016)	3.95★
NR2206	16	Monolithic Function Generator	3.95
MC4024P	14	Dual Voltage Control Multivibrator	3.95
MM5321N	16	TV Camera Sync. Generator	9.95★
8038CCPD	16	Precision Wave Form Generator	3.95
MC14411	24	Bit Rate Frequency	9.95
MM52116FKW	24	Character Generator (128 Characters)	2.95★

TELEPHONE/KEYBOARD CHIPS

74C922	18	Keyboard Encoder (16 Keys) (INS8245N)	\$3.95
74C923	20	Keyboard Encoder (20 Keys) (INS8246N)	3.95
HD-1-0165-5	24	Keyboard Encoder (16 Keys)	11.95
KR3600-Std	40	Keyboard Encoder (90 Keys) Non-Program.	12.95
KR3600-PRO	40	Keyboard Encoder (90 Keys) Programmable	13.95
AY-5-2376	40	Keyboard Encoder (88 Keys) (KR2376)	9.95
MM53130N	18	Touch Tone Dialer	4.95
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MOTOROLA

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MC667P	14	Dual Monostable Multivibrator	2.95★
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MC1330A1	8	Low Level Video Detector	.89★
MC1349P	8	Video IF Amp (15V operation)	.79★
MC1350P	8	Video IF Amp (12V operation)	.59★
MC1358P	14	TV Sound IF Amp	.59★
MC1408-7	16	8-Bit D to A Converter (DAC0807LCN)	1.49
MC1408-8	16	8-Bit D to A Converter (DAC0808LCN)	1.95
MC1801P	14	Dual 5-1 NAND Gate	.79★
MC1810P	14	Quad 2-Input NOR Gate	.79★
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MC3310P	8	FM-IF Wide Band Amp	\$4.99★
MC3340P	8	Electronic Attenuator	1.49★
MC3441AP	14	Quad Gen. Purp. Interface Bus Transceiver	2.95★
MC3346P	14	Quad Bus Transceiver	.99★
MC3470P	18	Floppy Disc Read Amp System	1.95
MC4024P	14	Dual Voltage Control Multivibrator (11C24)	3.95
MC4044P	14	Frequency Phase Detector (11C44)	3.95
MC14409	16	Binary-to-Phone Pulse Converter	16.95★
MC14410	16	2-of-8 Tone Encoder	8.95★
MC14411	24	Bit Rate Frequency Generator	9.95
MC14412	16	Universal Low-Speed Modem	7.95★
MC14490	16	Hex Contact Bounce Eliminator	4.49★

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MICROPROCESSOR COMPONENTS

Z80, Z80A, Z80B, Z8000 SERIES

Part No.	Pins	Function	Price
Z80-2.5MHz			
Z80	40	CPU (MK3880N)(780C) 2.5MHz	\$1.75
Z80-CTC	28	Counter Timer Circuit (MK3882)	1.79
Z80-DART	40	Dual Asynchronous Receiver/Transmitter	4.95
Z80-DMA	40	Direct Memory Access Circuit (MK3883)	4.95
Z80-PIO	40	Parallel I/O Interface Controller (MK3881)	1.79
Z80-SIO/0	40	Serial I/O (Tx/CB & Rx/CB Bonded) (MK3884)	4.95
Z80-SIO/1	40	Serial Input/Output (Lacks DTRB)	4.95
Z80-SIO/2	40	Serial Input/Output (Lacks SYNCB)	4.95
Z80-SIO/9	40	Serial Input/Output	4.95
Z80A-4MHz			
Z80A	40	CPU (MK3880N-4)(780C-1) 4MHz	\$1.85
Z80A-CTC	28	Counter Timer Circuit (MK3882-4)	1.89
Z80A-DART	40	Dual Asynchronous Receiver/Transmitter	5.25
Z80A-DMA	40	Direct Memory Access Circuit (MK3883-4)	5.95
Z80A-PIO	40	Parallel I/O Interface Controller (MK3881-4)	1.95
Z80A-SIO/0	40	Serial I/O (Tx/CB & Rx/CB Bonded) (MK3884-4)	5.25
Z80A-SIO/1	40	Serial I/O (Lacks DTRB)	5.25
Z80A-SIO/2	40	Serial I/O (Lacks SYNCB)	5.25
Z80A-SIO/9	40	Serial Input/Output	5.25
Z80B-6MHz			
Z80B	40	CPU (MK3880N-6) 6MHz	\$3.95
Z80B-CTC	28	Counter Timer Circuit (MK3882-6)	4.95
Z80B-DART	40	Dual Asynchronous Receiver/Transmitter	6.95
Z80B-PIO	40	Parallel I/O Interface Controller (MK3881-6)	4.95
Z80B-SIO/0	40	Serial I/O (Tx/CB & Rx/CB Bonded) (MK3884-6)	12.95
Z80B-SIO/1	40	Serial I/O (Lacks DTRB)	12.85
Z80B-SIO/2	40	Serial I/O (Lacks SYNCB)	12.79
Z8000			
Z8001B	48	CPU Segmented (10MHz)	\$24.95★
Z8002B	40	CPU Non-Segmented (10MHz)	19.95★
Z8003A	40	Serial Communications Controller (6MHz)	14.95★
Z8036A	40	Counter/Timer and Parallel I/O Unit (6MHz)	11.95★

30013 1985 Zilog Data Book (1045 pgs.) \$9.95

CDP1802 SERIES

CDP1802CE	40	CPU 2.5MHz	\$9.95
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6500 SERIES

6502	40	MPU with Clock (1MHz)	\$2.75
6502A	40	MPU with Clock (2MHz)	2.95
6502B	40	MPU with Clock (3MHz)	6.95
6520	40	Peripheral Inter. Adapter	2.95
6522	40	Versatile Inter. Adapter	4.95
6545	40	CRT Controller (CRTC)	4.95
6551	28	Asynchronous Comm. Interface Adapter	6.95

6800, 68B00, 68000 SERIES

6800-1MHz

6800	40	MPU—8-Bit	\$1.95
6802	40	MPU—8-Bit with Clock and RAM	4.95
6809	40	CPU—8-Bit (On-Chip Oscillator)	5.75
6809E	40	CPU—8-Bit (External Clocking)	5.95
6810	24	128x8 Static RAM	1.95
6821	40	Peripheral Inter. Adapt (MC6820)	1.95
6830L8	24	1024x8-Bit ROM Mik/Min Bug Program	9.95★
6840	28	Programmable Timer	6.95
6843	40	Programmable Floppy Disk Controller	19.75
6845	40	CRT Controller (CRTC)	4.95
6850	24	Asynchronous Comm. Adapter (ACIA)	1.95
6852	24	Synchronous Serial Data Adapter	4.75
6860	24	0-600 bps Digital MODEM	7.95
6880A	16	Quad 3-State Bus Trans. (N8T26)	1.59

68B00-2MHz

68B00	40	MPU—8-Bit	\$4.95
68B02	40	MPU—8-Bit with Clock and RAM	5.95
68B09	40	CPU—8-Bit (On-Chip Oscillator)	6.95
68B09E	40	CPU—8-Bit (External Clocking)	7.25
68B10	24	128x8 Static RAM	3.49
68B21	40	Peripheral Interface Adapter	3.95
68B45	40	CRT Controller (CRTC)	6.95
68B50	24	Asynchronous Comm. Int. Adapter (ACIA)	2.95

68000 SERIES

MC68000L8	64	MPU 16-Bit (8MHz)	\$9.95
MC68488P	40	General Purpose Interface Adapter	14.95
MC68652P2	40	Multi-Protocol Comm. Cont. 2MHz(2652)	14.95
MC68661PB	28	Enhanced Prog. Comm. Interface (2661-2)	8.95
MC68701	40	8-Bit Microcomputer with EPROM	24.95★



MOTOROLA MC68701—Microcomputer with EPROM



40 Pin

The MC68701 is an 8-bit single chip microcomputer unit (MCU) which significantly enhances the capabilities of the M6800 family of parts. On-chip resources include 2048 bytes of EPROM, 128 bytes of RAM, Serial Communications Interface (SCI), parallel I/O, and a three function Programmable timer.

MC68701 \$24.95★

8000, 80000 SERIES

Part No.	Pins	Function	Price
8000			
8031	40	CPU with RAM and I/O	\$6.95
80C31BH	40	CPU with RAM and I/O (CMOS)	19.95
8035	40	MPU—8-Bit	1.95
80C35	40	MPU—8-Bit (CMOS)	5.95
8039	40	CPU—Single Chip 8-Bit (128 Bytes RAM)	2.75
80C39	40	CPU—Single Chip 8-Bit (128 Bytes RAM) (CMOS)	5.95
8040	40	CPU—8-Bit (256 Bytes RAM)	6.95
8048**	40	MPU—8-Bit (Can use for 8035)	1.75★
8049**	40	CPU—Single 8-Bit (Can use for 8039)	1.75★
8060	40	CPU—8-Bit NMOS	14.95
8073	40	CPU—with Basic Micro Interpreter	29.95
8080A	40	CPU	3.95
8085	40	CPU—8-Bit N-Channel	2.75
8085A-2	40	CPU—8-Bit N-Channel (5MHz)	4.95
80C85	40	CPU—8-Bit N-Channel (CMOS)	5.95
8086-2	40	CPU—16-Bit (8MHz)	8.95
8087	40	Arithmetic Processor	129.95
8087-2	40	Arithmetic Processor (8MHz)	139.95
8088	40	CPU—16-Bit (8-Bit Data Bus)	7.95
8100			
8116	18	Dual Baud Rate Generator	\$8.95
8154	40	1K (128x8) RAM 16-Bit I/O	9.95★
8155	40	HMOS RAM I/O Port and Timer	2.75
81C55	40	256x8 RAM I/O Timer (CMOS)	4.95
8156	40	RAM with I/O Port and Timer	2.75
8185-2	18	1024x8-Bit Static RAM for MCS-85	26.49★
8200			
8202	40	Dynamic RAM Controller	\$9.95
8203	40	64K Dynamic RAM Controller	29.95
8205	16	High Speed 1 out of 8 Binary Decoder (3205)	3.29
8212	24	8-Bit Input/Output (74S412)	1.95
8214	24	Priority Interrupt Control	3.79★
8216	16	Bi-Directional Bus Driver	1.49
8224	16	Clock Generator/Driver	2.25
8226	16	Bus Driver	1.65
8228	28	System Controller/Bus Driver (74S428)	3.49
8237	40	Programmable DMA Controller	4.95
8237-5	40	Programmable DMA Controller	6.95
8238	28	System Controller (74S438)	4.29★
8243	24	I/O Expander for 48 Series	2.49
82C43	24	I/O Expander for 48 Series (CMOS)	4.95
8250(B)	40	ACE (IBM PC or XT Software Compatible)	5.95
8250A	40	Asynchronous Comm. Element	1.95
8251	28	Prog. Comm. I/O (USART)	6.95
8251A	28	Prog. Comm. Interface (USART)	2.25
82C51A	28	Prog. Comm. Interface (USART) (CMOS)	4.49
8253	24	Prog. Interval Timer	1.95
8253-5	24	Prog. Interval Timer	2.25
82C53-5	24	Prog. Interval Timer (CMOS)	4.95
8254	24	Prog. Interval Timer	9.95
8255	40	Prog. Peripheral I/O (PPI)	1.95
8255A-5	40	Prog. Peripheral I/O (PPI)	2.25
82C55A-5	40	Prog. Peripheral I/O (PPI) (CMOS)	4.49
8257	40	Prog. DMA Controller	2.25
8257-5	40	Prog. DMA Controller	2.49
8259	28	Prog. Interrupt Controller	2.25
8259-5	28	Prog. Interrupt Controller	2.49
8272	40	Single/Double Density Floppy Disk Cont. (D765A)	4.95
8274	40	Multi-Protocol Serial Controller (7201)	14.95
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8282	20	Octal Latch	3.95
8283	20	Octal Latch (Inverts Input Data at Outputs)	3.95
8284	18	Clock Generator and Driver	2.95
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8287	20	Octal Bus Transceiver (Inverted)	3.95
8288	20	Bus Controller	4.95
8289	20	Bus Arbiter	14.95
8300			
8303	20	8-Bit Tri-State Bi-Directional Transceiver	\$2.29★
8304	20	8-Bit Bi-Directional Receiver	2.29★
8307	20	8-Bit Bi-Directional Receiver	2.29★
8308	20	8-Bit Bi-Directional Receiver	2.29★
8310	20	Octal Latched Peripheral Driver	2.49★
8311	20	Octal Latched Peripheral Driver	2.49★
8700			
8741	40	8-Bit Universal Peripheral Interface	\$8.95
8748	40	MPU—HMOS EPROM	7.95
8749	40	MPU—8-Bit (EPROM Version of 8049)	9.95
8751	40	CPU w/4Kx8 EPROM and 128x8 RAM	29.95★
8755	40	16K EPROM with I/O	14.95
80000			
80186	68	High Integration 16-Bit MPU	\$49.95
80188	68	High Integration 16-Bit MPU (8-Bit Data Bus)	49.95
80287	40	Numeric Processor Ext.	229.95

**8048 MPU AND 8049 CPU

**To convert an 8048 to an 8035, or an 8049 to an 8039, just tie Pin 7 high to by-pass the Internal ROM.

210830 1983/84 Intel Mem. Data Book (880 pgs.) \$14.95
230843 1983/84 Intel Microprocessor & Peripheral Data Book—2 Volumes (2575 pgs.) \$19.95

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• 74C • 74F • 74H • 74L • 74S • 74AS

PINS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7400 74LS00 双输入端集电极开路NAND门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7401 74LS01 集电极开路NAND门	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7401 8	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7402 74LS02 集电极开路NAND门	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7403 74LS03 集电极开路NAND门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7404 74LS04 集电极开路NOT门	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7405 74LS05 集电极开路NOT门	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7406	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7407	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7408 74LS08 双输入端集电极开路NAND门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7409 74LS09 集电极开路NAND门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7410 74LS10 集电极开路NAND门	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7411 74LS11 集电极开路NAND门	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7412 74LS12	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7413 74LS13	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7414 74LS14 集电极开路NOT门	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7415 74LS15 集电极开路NOT门	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7416	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7417	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7418 15	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7419 15	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7420 74LS20 集电极开路NAND门	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7421 74LS21 集电极开路NAND门	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7422 74LS22 集电极开路NAND门	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7423	1X	1A	1B	S1G	1C	1D	1Y	GND	2Y	2A	2B	S2G	2C	2D	1X	VCC				
7424 15	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7425	1A	1B	S1G	1C	1D	1Y	GND	2Y	2A	2B	S2G	2C	2D	VCC						
7426 15H	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7427 74LS27 集电极开路NAND门	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7428 15 15H	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7430 74LS30 集电极开路NOT门	A	B	C	D	E	F	GND	Y	NC	NC	4	H	NC	VCC						
7431 15	1A	1Y	2A	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	6Y	6A	VCC				
7432 74LS32 集电极开路NOT门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7433 15 15H	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7434 74LS34 集电极开路NOT门	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7435 15H	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7437 74LS37 集电极开路NOT门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7438 74LS38 集电极开路NOT门	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7439	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7440 15 15H 15H	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7441	00	09	A	D	VCC	B	C	G2	G3	Q7	Q6	GND	Q4	Q5	Q1	Q0				
7442 02 15H 15H	00	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7443 15	00	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7444 15	00	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7445	00	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7446 15	IB	IC	1Y	R0D	R0I	ID	IA	GND	0e	0d	0c	0b	0a	0g	0f	VCC				
7447 15H	IB	IC	1Y	R0D	R0I	ID	IA	GND	0e	0d	0c	0b	0a	0g	0f	VCC				
7448 02 15H	IB	IC	1Y	R0D	R0I	ID	IA	GND	0e	0d	0c	0b	0a	0g	0f	VCC				
7449 15	IB	IC	1Y	R0L	ID	IA	0e	GND	0d	0c	0b	0a	0g	0f	VCC					
7450 0	1A	2A	2B	2C	2D	2Y	GND	1Y	1C	1D	X	X	1B	VCC						
7451 0 15H	1A	2A	2B	2C	2D	2Y	GND	1Y	1C	1D	NC	NC	1B	VCC						
7451 15H	1A	2A	2B	2C	2D	2Y	GND	1Y	1D	1E	1F	1B	1C	VCC						
7452 0	A	B	C	D	E	NC	GND	Y	X	F	G	H	I	VCC						
7453	A	C	D	E	F	NC	GND	Y	G	H	X	X	B	VCC						
7453 0	A	C	D	E	F	G	GND	Y	H	I	X	X	B	VCC						
7454	A	C	D	E	F	NC	GND	Y	G	H	NC	NC	B	VCC						
7454 0	A	C	D	E	F	G	GND	Y	H	I	NC	NC	B	VCC						
7454 15H	A	B	C	D	E	Y	GND	NC	F	G	H	I	J	VCC						
7455 0	A	B	C	D	X	NC	GND	Y	X	E	F	G	H	VCC						

• 74C • 74F • 74H • 74L • 74S • 74AS

Pins	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7455 L16	A	B	C	D	NC	NC	GND	Y	NC	E	F	G	H	VCC						
7456 L16	CLKB	VCC	QA	GND	CLKA	CLR	OB	OC												
7457 L16	CLKB	VCC	QA	GND	CLKA	CLR	OB	OC												
7458 M16	1A	2A	2B	2C	2D	2Y	GND	1Y	1D	1E	1F	1B	1C	VCC						
7460 #	1A	1B	1C	2A	2B	2C	GND	2D	2X	2K	1K	1X	1D	VCC						
7461 #	1A	1B	1C	2A	2B	2C	GND	2X	1F	3X	3A	3B	3C	VCC						
7462 #	A	B	C	D	E	X	GND	X	F	G	H	I	J	VCC						
7463 L16	1A	1Y	2Y	2A	3A	3Y	GND	4Y	4A	5A	5Y	6Y	6A	VCC						
7464 #	A	E	F	G	H	I	GND	Y	J	K	B	C	D	VCC						
7465 #	A	E	F	G	H	I	GND	Y	J	K	B	C	D	VCC						
7468 L16	1CLKA	1OB	1OD	1CLR	2OC	NC	2OA	GND	2CLK	2OB	2CLR	2OD	1OC	1OA	1CLKB	VCC				
7469 L16	1CLKA	1OB	1OD	1CLR	2OC	NC	2OA	GND	2CLK	2OB	2CLR	2OD	1OC	1OA	1CLKB	VCC				
7470	NC	CR	J1	J2	J	Q	GND	Q	R	K1	K2	CK	PR	VCC						
7471 #	J1A	J1B	J2A	J2B	PR	Q	GND	Q	K1A	K1B	K2A	K2B	CK	VCC						
7471 L16	NC	CR	S1	S2	S3	Q	GND	Q	R1	R2	R3	K3	CK	PR	VCC					
7472 L16	NC	CR	J1	J2	J3	Q	GND	Q	K1	K2	K3	CK	PR	VCC						
7473 L16 L16	1CK	1CR	1K	VCC	2CK	2CR	2J	2Q	2D	2K	GND	1Q	1J							
7474 L16 L16 L16	1CR	1D	1CK	1PR	1Q	1Q	GND	2Q	2PR	2CK	2D	2CR	VCC							
7475 L16 L16	1Q	1D	2D	E3-A	VCC	3Q	4D	4Q	4Q	3Q	3Q	GND	E1-2	2Q	2Q	1Q				
7476 L16 L16 L16	1CK	1PR	1CR	1J	VCC	2CK	2PR	2CR	2J	2Q	2Q	2K	GND	1Q	1Q	1K				
7477 L16	1D	2D	E3-A	VCC	3Q	4D	NC	4Q	3Q	NC	GND	E1-2	2Q	2Q	1Q					
7478 #	1K	1Q	1Q	1J	2Q	2D	GND	2K	CK	2PR	2J	CR	1PR	VCC						
7478 L16	CK	1PR	1J	VCC	CR	2PR	2K	2Q	2Q	2J	GND	1Q	1Q	1K						
7480	B	BC	Cn	Cn+T	SM	SM	GND	A1	A2	A	AC	B1	B2	VCC						
7481	AX3	AX2	AX1	VCC	AY1	AY2	AY3	AY4	WR0	GND	S0	S1	WR1	AX4						
7482	SM1	A1	B1	VCC	OC	NC	NC	NC	C2	GND	SM2	B2	A2							
7483 L16	A4	SM3	A3	B3	VCC	SM2	B2	A2	SM1	A1	B1	GND	OC	C4	SM4	B4				
7484	AX4	AX3	AX2	AX1	VCC	Y1	AY2	AY3	AY4	WR0B	WR0A	GND	S0	S1	WR1B	WR1A				
7485 L16 L16	IB3	IA<B	IA=B	IA>B	QA<B	QA=B	QA>B	GND	IB0	IB1	IA1	IA2	IB2	IA3	VCC					
7485 L16	IB2	IA2	QA=B	IA>B	IA=B	IA<B	IA=B	IA=B	GND	IB1	IA0	IB0	QA<B	QA=B	QA>B	IB3	IA3	VCC		
7486 L16 L16 L16	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7486 L16	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
7487 #	C	A1	Y1	NC	A2	Y2	GND	B	Y3	A3	NC	Y4	A4	VCC						
7488	D01	D02	D03	D04	D05	D06	D07	GND	D08	ADA	ADB	ADC	ADD	ADC	CS	VCC				
7489 L16	ADA	ME	WE	D11	D51	D12	D52	GND	D53	D13	D54	D14	ADD	ADC	ADB	VCC				
7490 L16 L16	IBD	RO(1)	RO(2)	NC	VCC	R9(1)	R9(2)	C	OB	GND	OD	QA	NC	IA						
7491 L16	NC	NC	NC	NC	VCC	NC	NC	NC	CK	GND	IB	IA	QH	OH						
7492 L16	IB	NC	NC	NC	VCC	RO(1)	RO(2)	OD	QC	GND	OB	QA	NC	IA						
7493 L16	IB	RO(1)	RO(2)	NC	VCC	NC	NC	CK	OB	GND	OD	QA	NC	IA						
7493 L16	RO(1)	RO(2)	NC	VCC	NC	NC	NC	IB	OB	QC	GND	OD	QA	IA						
7494	PIA	P1B	P1C	P1D	VCC	PE1	SI	CK	Q	CR	P2D	GND	P2C	P2B	PE2	P2A				
7495 L16 L16	SI	IA	IB	IC	VD	MC	GND	CK1K	CK2L	CK1R	OD	QC	OB	QA	VCC					
7495 L16	SI	IB	IC	VCC	ID	MC	CK1R	CK2L	OD	QC	GND	OB	QA	IA						
7496 L16	CK	PR-A	PR-B	PR-C	VCC	PR-D	PR-E	PR-F	EN	Q	OE	OD	NC	QC	OB	QA	CR			
7497	IB	IE	IF	IA	OZ	OY	ENQ	GND	CK	S	ENI	UC	CR	IC	ID	VCC				
7498 L16	IA2	IA1	IB1	IB2	IC1	IC2	ID1	GND	WS	CK	OD	ID1	C	OB	QA	VCC				
7499 L16	A	J	B	C	VCC	D	M	CK1	CK2	OD	OD	C	GND	OB	QA	R				
74100	NC	1D1	1D2	1D2	101	NC	GND	2D1	2D2	2D2	2D1	E-2B	NC	NC	2D3	2D4	2D4	2D3	1D3	1D4
	1D4	1D3	E-1G	VCC																
74101 #	J1A	J1B	J2A	J2B	PR	Q	GND	Q	K1A	K1B	K2A	K2B	CK	VCC						
74102 #	NC	CR	J1	J2	J	Q	GND	Q	K1	K2	K3	CK	PR	VCC						
74103 #	1CK	1CR	1K	VCC	2CK	2CR	2J	2Q	2D	2K	GND	1Q	1J							
74104	JK	PRE	K1	J1	J2	Q	GND	Q	CLK	K2	K3	J3	CLR	VCC						
74105	JK	PRE	K1	J1	J2	Q	GND	Q	CLK	K2	K3	J3	CLR	VCC						
74106 #	1CK	1PR	1CR	1J	VCC	2CK	2PR	2CR	2J	2Q	2D	2K	GND	1Q	1Q	1K				
74107 L16 L16	1J	1Q	1Q	1K	2Q	2D	GND	2J	2CK	2CR	2K	1CK	1CR	VCC						
74108 #	1K	1Q	1Q	1J	2Q	2D	GND	2K	CK	2PR	2J	CR	1PR	VCC						
74109 L16 L16 L16	1CR	1J	1K	1CK	1PR	1Q	1Q	GND	2Q	2PR	2CK	2K	2J	2CR	VCC					
74110	NC	CR	J1	J2	J	Q	GND	Q	K1	K2	K3	CK	PR	VCC						

ABBREVIATIONS

• 74C • 74F • 74H • 74L • 74S • 74AS

74251-74352

• 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74251 <small>16 pin, 16 pin, 16 pin</small>	D3	D2	D1	D0	Q1	QW	S	GND	D5EC	D5EB	D5EA	D7	D6	D5	D4	VCC				
74253 <small>16 pin, 16 pin, 16 pin</small>	Q1G	BSEL	I1C3	I1C2	I1C1	I1C0	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19				
74256 <small>16 pin</small>	A0	A1	A4	Q0A	Q1A	Q2A	Q3A	GND	Q0B	Q1B	Q2B	Q3B	Q4B	Q5B	Q6B	Q7B				
74257 <small>16 pin, 16 pin, 16 pin</small>	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	G	VCC				
74258 <small>16 pin, 16 pin, 16 pin</small>	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	G	VCC				
74259 <small>16 pin, 16 pin, 16 pin</small>	SELA	SELB	SELC	Q0	Q1	Q2	Q3	GND	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11				
74260 <small>16 pin</small>	1A	1B	1C	2A	1Y	2Y	GND	2B	2C	2D	2E	10	1E	VCC						
74261 <small>16 pin</small>	B3	B4	LCG	M2	Q4	Q3	Q2	GND	Q1	Q0	M1	B0	B1	B2	VCC					
74264 <small>16 pin</small>	A1	B1	A0	B0	A3	B3	RCOB	GND	C2	RCOA	C1	C0	CE	A2	B2	VCC				
74265	1A	1W	1Y	2A	2B	2W	2Y	GND	3Y	3W	3A	3B	4Y	4W	4A	VCC				
74266 <small>16 pin</small>	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
74268	Q0	1Q	1D	2D	2Q	3Q	GND	C	4Q	4D	5Q	5D	6D	6Q	VCC					
74270 <small>16 pin</small>	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	D0A	D0B	D0C	D0D	D0E	S	ADJ	ADH	VCC			
74271 <small>16 pin</small>	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74273 <small>16 pin, 16 pin, 16 pin</small>	Q1	1Q	1D	2D	2Q	3Q	3D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC	
74274 <small>16 pin</small>	IA2N	IA2N1	IA2N2	IA2N3	B2n	2n1	2n2	2n3	GND	2n4	2n5	2n6	2n7	G1	G2	B2n1	B2n2	B2n3	VCC	
74275 <small>16 pin</small>	IA2N	IA2N1	IA2N2	IA2N3	IC2N	IC2N1	IC2N2	IC2N3	GND	IC2N4	IC2N5	IC2N6	IC2N7	IC2N8	IC2N9	IC2N10	IC2N11	IC2N12	VCC	
74276	CR	1J	1CK	1R	1Q	2C	2K	2CK	2Y	GND	PR	3J	3CK	3R	3Q	4R	4CK	4J	VCC	
74278	IS	IO3	IO4	IP0	OP1	OY4	GND	OY3	OY2	OY1	NC	IO1	IO2	VCC						
74279 <small>16 pin</small>	1R	1S1	1S2	1Q	2R	2S	2Q	GND	3Q	3R	3S1	3S2	4R	4S	VCC					
74280 <small>16 pin, 16 pin, 16 pin</small>	IG	H	NC	IE	QEV	QOD	IG	IA	IB	IC	IE	IF	VCC							
74281 <small>16 pin</small>	IA1	IA2	RS1	RS0	CR	LIRQ	Q3A	Cn	G	Cn+4	P	GND	QF3	QF2	QF1	QF0	MC	AS2	AS1	AS0
74282 <small>16 pin</small>	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK	CLK
74283 <small>16 pin, 16 pin, 16 pin</small>	SM2	B2	A2	SM1	A1	B1	C0	GND	C4	SM4	B4	A4	SM3	A3	B3	VCC				
74284	I2C	I2B	I2A	I1D	I1A	I1B	I1C	GND	QY7	QY6	QY5	QY4	ENGB	ENGA	I2D	VCC				
74285	I2C	I2B	I2A	I1D	I1A	I1B	I1C	GND	QY7	QY6	QY5	QY4	ENGB	ENGA	I2D	VCC				
74286 <small>16 pin</small>	G	H	XMIT	I	PAKE	PAUO	GND	A	B	C	D	E	F	VCC						
74287 <small>16 pin</small>	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	D0A	D0B	D0C	D0D	D0E	S1	S2	ADH	VCC			
74288 <small>16 pin</small>	D01	D02	D03	D04	D05	D06	D07	GND	D08	ADA	ADB	ADC	ADD	ADE	S	VCC				
74289 <small>16 pin, 16 pin, 16 pin</small>	A0	S	R/W	D1	D01	D12	D02	GND	D03	D13	D04	D14	ADD	ADC	ADB	VCC				
74290 <small>16 pin</small>	RS(1)	NC	RS(2)	QC	OB	NC	GND	QD	QA	IA	IB	RO(1)	RO(2)	VCC						
74292 <small>16 pin</small>	B	E	TP1	CK1	CK2	TP2	Q	GND	NC	A	CR	NC	TP3	D	C	VCC				
74293 <small>16 pin</small>	NC	NC	NC	QC	OB	NC	GND	QD	QA	IA	IB	RO(1)	RO(2)	VCC						
74294 <small>16 pin</small>	B	A	TP	CK1	CK2	NC	Q	GND	NC	NC	CR	NC	NC	D	C	VCC				
74295 <small>16 pin</small>	SI	IA	IB	IC	IO	MC	GND	CK	CLK	QD	QC	QB	QA	VCC						
74297 <small>16 pin</small>	B	A	ENCR	CKLK	IOCK	D/U	I/OQ	GND	0A1	0B	XOPD	0A2	D	C	VCC					
74298 <small>16 pin, 16 pin, 16 pin</small>	IB2	IA2	IA1	IB1	IC2	ID2	E02	I0D	DIC1	VS	CLK	QD	QC	QB	QA	VCC				
74299 <small>16 pin, 16 pin, 16 pin</small>	SO	Q51	G0G	G0E	Q0C	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A
74300	ADA	ADB	S1	S2	S3	D0	ADD	GND	ADE	ADF	ADG	W	D1	ADH	ADC	VCC				
74301 <small>16 pin</small>	ADA	ADB	S1	S2	S3	Q	ADD	GND	ADE	ADF	ADG	WEN	D1	ADH	ADC	VCC				
74302	ADA	ADB	E1	E2	E3	D0	ADD	GND	ADE	ADF	ADG	W	D1	ADH	ADC	VCC				
74310 <small>16 pin</small>	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74314	S	ADA	ADB	ADC	ADD	ADE	D0	GND	ADF	ADG	ADH	ADJ	ADJ	W	D1	VCC				
74315	E	ADA	ADB	ADC	ADD	ADE	D0	GND	ADF	ADG	ADH	ADJ	ADJ	W	D1	VCC				
74319 <small>16 pin</small>	A0	S	R/W	D1	D1	D2	Q2	GND	Q3	D3	Q4	D4	A3	A2	A1	VCC				
74320 <small>16 pin</small>	TK1	TK2	GN1	FFQ	FFD	NC	F	GN2	FP	FP	FP	FP	NC	XT1	XT2	VCC				
74321 <small>16 pin</small>	TK1	TK2	GN1	FFQ	FFD	F/4	F	GN2	FP	FP	FP	F/2	X1	XT2	VCC					
74322 <small>16 pin, 16 pin, 16 pin</small>	G	PS	D0	ADA	C0C	E0E	G0G	E0E	CR	GND	CK	QHP	H0F	Q0D	B0B	D1	SE	DS	VCC	
74323 <small>16 pin, 16 pin, 16 pin</small>	SO	Q51	G0G	G0E	Q0C	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A	Q0A
74333 <small>16 pin</small>	IB	IT	IB	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS
74335 <small>16 pin</small>	IB	IT	IB	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS
74340 <small>16 pin</small>	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74341 <small>16 pin</small>	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74344 <small>16 pin</small>	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74347 <small>16 pin</small>	B	C	IT	R0B	R0B	D	A	GND	QD	QC	QB	QA	QD	QC	QB	QA	VCC			
74348 <small>16 pin</small>	IA	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS	IS
74350 <small>16 pin</small>	D-3	D-2	D-1	D0	D1	D2	D3	GND	S1	S0	Y3	Y2	Y1	Y0	VCC					
74351	1Y	ENB	SIA	SIB	SC	I1D0	I1D1	I1D2	I1D3	GND	ID6	ID5	ID4	ID3	ID2	ID1	ID0	2Y	VCC	
74352 <small>16 pin, 16 pin, 16 pin</small>	STG	SELB	HC3	HC2	HC1	H10	H11	Q1Y	GND	Q2Y	Q2C	Q2C1	Q2C2	SELA	S2G	VCC				

• 74C • 74F • 74H • 74L • 74S • 74AS

74353-74451

• 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74353 16 pin	OC1G	SELB	HC3	HC2	HC1	H10	Q1Y	GND	Q2Y	I2C0	I2C1	I2C2	I2C3	SELA	OC2G	VCC				
74354 16 pin	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74355 16 pin	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74356 16 pin	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74357 16 pin	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74362	TK1	TK2	GN1	FFQ	FFD	PA	P3	P4	GN2	P2	P1	VDD	P0	P2	00	01	XT1	XT2	VCC	
74363 16 pin	OC	1Q	1D	2D	2Q	3Q	3D	4Q	GND	Q	5Q	5D	6Q	6D	7Q	7D	8Q	8Q	VCC	
74364 16 pin	OC	1Q	1D	2D	2Q	3Q	3D	4Q	GND	Q	5Q	5D	6Q	6D	7Q	7D	8Q	8Q	VCC	
74365 16 pin, 16 pin, 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74366 16 pin, 16 pin, 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74367 16 pin, 16 pin, 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74368 16 pin, 16 pin, 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74370 16 pin	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	D0A	D0B	D0C	D0D	D0E	S	ADH	ADH	VCC			
74371 16 pin	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74373 16 pin, 16 pin, 16 pin	OC	1Q	1D	2D	2Q	3Q	3D	4Q	GND	C	5Q	5D	6D	6Q	7Q	7D	8Q	8Q	VCC	
74374 16 pin, 16 pin, 16 pin	OC	1Q	1D	2D	2Q	3Q	3D	4Q	GND	C	5Q	5D	6D	6Q	7Q	7D	8Q	8Q	VCC	
74375 16 pin	1Q	1Q	1Q	EN1-2	2Q	2Q	2Q	2Q	GND	3Q	3Q	EN3-4	4Q	4Q	4Q	VCC				
74376	CLR	1J	1R	1Q	2D	2K	2J	GND	CLK	3J	3K	3Q	4Q	4K	4J	VCC				
74377 16 pin	EN6	1Q	1D	2D	2Q	3Q	3D	4Q	GND	CLK	5Q	5D	6D	6Q	7Q	7D	8Q	8Q	VCC	
74378 16 pin	EN6	1Q	1D	2D	2Q	3Q	3D	4Q	GND	CLK	4Q	4Q	5Q	5D	6D	6Q	VCC			
74379 16 pin	EN6	1Q	1Q	1D	2D	2Q	2Q	GND	CLK	3Q	3Q	3D	4Q	4Q	4Q	VCC				
74380 16 pin	CK	LD	D0	D1	D2	D3	D4	D5	D6	D7	POL	GND	OE	PR	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	CLR	VCC																
74381 16 pin	IA1	IB1	IA0	IB0	IS0	IS1	IS2	QF0	QF1	GND	QF2	QF3	QF6	QF7	ICN	IB3	IA3	IB2	IA2	VCC
74382 16 pin	A1	B1	A0	B0	S0	S1	S2	F0	F1	GND	F2	F3	QVR	CN4	CN	B3	A3	B2	A2	VCC
74383 16 pin	CREN	1Q	1D	2D	2Q	3Q	3D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8Q	8Q	VCC	
74384 16 pin	CLR	X3	X2	X1	Q0	PRD	CLK	GND	MOD	K	X7	X6	X5	X4	Y	VCC				
74385 16 pin	CLK	1S	15A	1B	1A	2A	2B	25A	2S	GND	CLR	3S	35A	3B	3A	4A	4B	45A	4S	VCC
74386 16 pin	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
74387 16 pin	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	D0A	D0B	D0C	D0D	D0E	S1	S2	ADH	VCC			
74390 16 pin, 16 pin, 16 pin	1A	1CR	1QA	1B	1QB	1QC	1QD	1QD	GND	20C	20B	2B	20A	2CR	2A	VCC				
74393 16 pin, 16 pin, 16 pin	1A	1CR	1QA	1QB	1QC	1QD	1QD	GND	20C	20B	20A	2CR	2A	VCC						
74395 16 pin	CLR	S1	IA	IB	IC	ID	IS	GND	OC	CLK	C0D	0D	0C	0B	0A	VCC				
74396 16 pin	201	1Q1	D1	2Q2	1Q2	D2	CLK	GND	D3	1Q3	2Q3	D4	1Q4	2Q4	B	VCC				
74398 16 pin	WSEL	QA	QA	A1	A2	B2	B1	QB	QB	GND	CLK	QC	QC	C1	C2	D2	D1	DB	QD	VCC
74399 16 pin	WS	QA	A1	A2	B2	B1	QB	QB	GND	CK	C1	C2	D2	D1	QD	VCC				
74412 16 pin	SEL1	MC	D1	D0	D2	D02	D3	D03	DA	DA	STB	GND	SEL2	CLR	D05	D15	D06	D16	D07	D17
	D08	D18	INT	VCC																
74422 16 pin	A1	A2	B1	B2	CR	Q	GND	Q	RIN	NC	CAP	NC	RC	VCC						
74423 16 pin	1A	1B	1CR	1Q	2Q	2CP	2RC	GND	2A	2B	2CR	2Q	1Q	1CP	1RC	VCC				
74424	R0	R1	RD1	RD0	S1	PT	S0	GND	VDD	P2	P1	OSC	TNK	X2	X1	VCC				
74425	1G	1A	1Y	2G	2A	2Y	GND	3Y	3A	3G	4Y	4A	4G	VCC						
74426	1G	1A	1Y	2G	2A	2Y	GND	3Y	3A	3G	4Y	4A	4G	VCC						
74428 16 pin	STS	HLDA	WTR	DBIN	DB4	DA	DB7	D7	DB3	D3	DB2	D2	DB0	GND	D0	DB1	D1	DB5	D5	DB6
	D6	BUS	INTA	MEMA	D0R	MEMW	D0W	VCC												
74436 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74437 16 pin	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74438 16 pin	STS	HLDA	WTR	DBIN	DB4	DA	DB7	D7	DB3	D3	DB2	D2	DB0	GND	D0	DB1	D1	DB5	D5	DB6
	D6	BUS	INTA	MEMA	D0R	MEMW	D0W	VCC												
74440 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74441 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74442 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74443 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74444 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74445 16 pin	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	Q0	C	B	A	VCC				
74446 16 pin	GBA	A1	DR2	A2	A3	DR3	A4	GND	B4	DR4	B3	B2	DR1	B1	GBA	VCC				
74447 16 pin	B	C	CT	RBO	RBI	D	A	GND	e	d	c	b	a	g	f	VCC				
74448 16 pin	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74449 16 pin	GBA	A1	DR2	A2	A3	DR3	A4	GND	B4	DR4	B3	B2	DR1	B1	GBA	VCC				
74450 16 pin	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	GND	E11	E12	E13	E14	E15	W	Y	D
	C	B	A	VCC																
74451 16 pin	100	101	102	103	104	105	106	107	200	201	202	GND	203	204	205	206	207	2Y	1Y	S
	C	B	A	VCC																

• 74C • 74F • 74H • 74L • 74S • 74AS

74453-74541

• 74HC • 74LS • 74SCL • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74453 <small>LS</small>	1C0	1C1	1C2	1C3	2C0	2C1	2C2	2C3	3C0	3C1	3C2	GND	3C3	4C0	4C1	4C2	4Y	3Y	2Y	1Y
	4C3	B	A	VCC																
74454 <small>LS</small>	A6	A5	A4	A3	A0	A1	A2	A10	GND	G	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74455 <small>LS</small>	A6	A5	A4	A3	A0	A1	A2	A10	GND	G	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74460 <small>LS</small>	A0	B0	A1	B1	A2	B2	A3	B3	A4	B4	A5	GND	B5	A6	B6	A7	B7	EQ	NE	A8
	B8	A9	B9	VCC																
74461 <small>LS</small>	CK	IO	DO	D1	D2	D3	D4	D5	D6	D7	I1	GND	OE	CO	O7	O6	O5	O4	O3	O2
	Q1	Q0	CB	VCC																
74465 <small>LS, RLS</small>	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74466 <small>LS, RLS</small>	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74467 <small>LS, RLS</small>	1G	1A1	1Y1	1A2	1Y2	1A3	1Y3	1A4	1Y4	GND	2Y1	2A1	2Y2	2A2	2Y3	2A3	2Y4	2A4	2G	VCC
74468 <small>LS, RLS</small>	1G	1A1	1Y1	1A2	1Y2	1A3	1Y3	1A4	1Y4	GND	2Y1	2A1	2Y2	2A2	2Y3	2A3	2Y4	2A4	2G	VCC
74469 <small>LS</small>	CK	LD	DO	D1	D2	D3	D4	D5	D6	D7	UD	GND	OE	CB0	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	CB1	VCC																
74470 <small>LS</small>	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74471 <small>LS</small>	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74472 <small>LS</small>	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74473 <small>LS</small>	ADA	ADB	ADC	ADD	ADE	D01	D02	D03	D04	GND	D05	D06	D07	D08	S1	S2	ADF	ADG	ADH	VCC
74474 <small>LS</small>	ADH	ADG	ADF	ADE	ADD	ADC	AD0	D01	D02	D03	GND	D04	D05	D06	D07	D08	S4	S3	S2	
	S1	NC	AD1	VCC																
74475 <small>LS</small>	ADH	ADG	ADF	ADE	ADD	ADC	AD0	D01	D02	D03	GND	D04	D05	D06	D07	D08	S4	S3	S2	
	S1	NC	AD1	VCC																
74476 <small>LS</small>	A6	A5	A4	A3	A0	A1	A2	G1	GND	G2	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74477 <small>LS, LS</small>	A6	A5	A4	A3	A0	A1	A2	G1	GND	G2	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74478 <small>LS, LS</small>	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	G2	G3	G1
	G4	A9	A8	VCC																
74479 <small>LS</small>	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	G2	G3	G1
	G4	A9	A8	VCC																
74481 <small>LS, LS</small>	B1/O2	B1/O3	A13	A12	A21	A20	OP0	OP1	OP2	OP3	OP7	VCC	OP6	OP5	OP8	OP9	OP4	C-in	POS	Y/A6
	X/LG	C-out	EN	LDWR	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT	WRLT
	AD0	AD5	INC	C1	CLK	B000	B001	B005												
74482 <small>LS</small>	IS4	IS3	C-out	C-in	IS1	IS2	IA3	IA2	IA1	GND	A0	QF3	QF2	QF1	QF0	CLR	IS6	IS5	CLK	VCC
74484 <small>LS</small>	E	D	C	B	A	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	G1	G2	H	G	F	VCC
74485 <small>LS</small>	E	D	C	B	A	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	G1	G2	H	G	F	VCC
74490 <small>LS</small>	1CLK	1CLR	1OA	1SET	1OB	1OC	1OD	1OE	1OF	1OG	1OH	1OI	1OJ	1OK	1OL	1OM	1ON	1OO	1OP	1OQ
74491 <small>LS</small>	CK	DO	D1	D2-7	D8	D9	LD	CNT	UP	ST	CTN	GND	OE	O9	O8	O7	O6	O5	O4	O3
	Q2	Q1	Q0	VCC																
74498 <small>LS</small>	CK	IO	DO	D1	D2	D3	D4	D5	D6	D7	I1	GND	OE	RILO	O7	O6	O5	O4	O3	O2
	Q1	Q0	LIRO	VCC																
74502 <small>LS</small>	IO	CC	Q0	Q1	Q2	Q3	D	GND	CP	S	Q4	Q5	Q6	Q7	O7	VCC				
74503 <small>LS</small>	E	CC	Q0	Q1	Q2	Q3	D	GND	CP	S	Q4	Q5	Q6	Q7	O7	VCC				
74504 <small>LS</small>	E	CC	Q0	Q1	Q2	Q3	Q4	Q5	NC	D	GND	CP	S	NC	O6	O7	O8	O9	O10	
	O11	NC	Q11	VCC																
74518 <small>LS</small>	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74519 <small>LS</small>	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74520 <small>LS</small>	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74521 <small>LS, LS, RLS, RLS</small>	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74522 <small>LS, LS</small>	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74524 <small>LS</small>	S0	I/O0	V01	I/O2	I/O3	I/O4	I/O5	I/O6	I/O7	GND	CP	M	LT	GT	EQ	C/S0	C/S1	SE	S1	VCC
74526 <small>LS</small>	G	P0	P1	P2	P3	P4	P5	P6	P7	GND	P8	P9	P10	P11	P12	P13	P14	P15	P=Q	VCC
74527 <small>LS</small>	G	P0	P1	P2	P3	P4	P5	P6	P7	GND	P8	P9	P10	P11	P12	P13	P14	P15	P=Q	VCC
74528 <small>LS</small>	G	P0	P1	P2	P3	P4	P5	P6	P7	GND	P8	P9	P10	P11	P12	P13	P14	P15	P=Q	VCC
74531 <small>LS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74532 <small>LS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74533 <small>LS, LS, RLS, RLS, RLS, RLS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74534 <small>LS, LS, RLS, RLS, RLS, RLS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74535 <small>LS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74536 <small>LS</small>	OE	IO	10	20	30	40	50	60	GND	G	50	50	60	70	70	80	80	80	80	VCC
74537 <small>LS</small>	O2	O1	Q0	P	OE	A0	A1	O5	O6	GND	O7	O8	E2	E1	A2	A3	O4	O3	VCC	
74538 <small>LS</small>	Y2	Y1	Y0	OE1	OE2	A	B	Y5	Y6	GND	Y7	Y8	G1	G2	G3	G4	C	Y4	Y3	VCC
74539 <small>LS</small>	Y2	Y1	Y0	OE1	OE2	A	B	Y5	Y6	GND	Y7	Y8	G1	G2	G3	G4	C	Y4	Y3	VCC
74540 <small>LS, LS, RLS, RLS, RLS, RLS</small>	G1	A1	A2	A3	A4	A5	A6	A7	A8	GND	Y8	Y7	Y6	Y5	Y4	Y3	Y2	Y1	G2	VCC
74541 <small>LS</small>	G1	A1	A2	A3	A4	A5	A6	A7	A8	GND	Y8	Y7	Y6	Y5	Y4	Y3	Y2	Y1	G2	VCC

• 74C • 74F • 74H • 74L • 74S • 74AS

74543-74613

• 74HC • 74LS • 74SCL • 74ALS • 74HCT

PINS →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74543	LEBA	OEBA	A0	A1	A2	A3	A4	A5	A6	A7	CEAB	GND	OEAB	LEAB	B7	B6	B5	B4	B3	B2
	B1	B0	CEBA	VCC																
74544	— SAME AS 74543, BUT THE 74544 HAS INVERTING OUTPUTS —																			
74545	A0	A1	A2	A3	A4	A5	A6	A7	OE	GND	T/R	B7	B6	B5	B4	B3	B2	B1	B0	VCC
74547	O2	O1	ACK	W/R	R/O	A0	A1	O5	O6	GND	O7	O0	E3	E2	E1	LE	A2	O4	O3	VCC
74548	O2	O1	ACK	W/R	R/O	A0	A1	O5	O6	GND	O7	O0	E4	E3	E2	E1	A2	O4	O3	VCC
74550	A3	A4	A5	CEBA	FBA	A6	A7	VCC	B7	B6	FAB	CEAB	B5	B4	B3	B2	B1	B0	OEBA	CPA
	CEA	GND	CEB	CPB	CEA	A0	A1	A2												
74551	— SAME AS 74550, BUT THE 74551 HAS INVERTING OUTPUTS —																			
74557	X0	X1	X2	X3	X4	X5	X6	X7	R	VCC	LE	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	YM
	OE	S15	S15	S14	S13	S12	S11	S10	S9	GND	S8	S7	S6	S5	S4	S3	S2	S1	S0	XM
74558	X0	X1	X2	X3	X4	X5	X6	X7	RS	VCC	RU	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	YM
	OE	S15	S15	S14	S13	S12	S11	S10	S9	GND	S8	S7	S6	S5	S4	S3	S2	S1	S0	XM
74560	ALOB	CLK	A	B	C	D	ENP	ACLK	SCLR	GND	SLOD	ENT	QD	QC	QB	QA	G	CCO	RCO	VCC
74561	ALOB	CLK	A	B	C	D	ENP	ACLK	SCLR	GND	SLOD	ENT	QD	QC	QB	QA	G	CCO	RCO	VCC
74563	OC	10	20	30	40	50	60	70	80	GND	C	80	70	60	50	40	30	20	10	VCC
74564	OC	10	20	30	40	50	60	70	80	GND	CLK	80	70	60	50	40	30	20	10	VCC
74568	U/O	CLK	A	B	C	D	ENP	ACLK	SCLR	GND	LD	ENT	QD	QC	QB	QA	G	CCO	RCO	VCC
74569	U/O	CLK	A	B	C	D	ENP	ACLK	SCLR	GND	LD	ENT	QD	QC	QB	QA	G	CCO	RCO	VCC
74570	A6	A5	A4	A3	A0	A1	A2	GND	Q4	Q3	Q2	Q1	ET	A8	A7	VCC				
74571	A6	A5	A4	A3	A0	A1	A2	GND	Q4	Q3	Q2	Q1	ET	A8	A7	VCC				
74572	A6	A5	A4	A3	A0	A1	A2	ET	GND	E2	Q4	Q3	Q2	Q1	A9	A8	A7	VCC		
74573	OC	10	20	30	40	50	60	70	80	GND	C	80	70	60	50	40	30	20	10	VCC
74574	OC	10	20	30	40	50	60	70	80	GND	CLK	80	70	60	50	40	30	20	10	VCC
74575	CLR	OC	10	20	30	40	50	60	70	80	NC	GND	NC	CLK	80	70	60	50	40	30
	20	10	NC	VCC																
74576	OC	10	20	30	40	50	60	70	80	GND	CLK	80	70	60	50	40	30	20	10	VCC
74577	CLR	OC	10	20	30	40	50	60	70	80	NC	GND	NC	CLK	80	70	60	50	40	30
	20	10	NC	VCC																
74580	OC	10	20	30	40	50	60	70	80	GND	C	80	70	60	50	40	30	20	10	VCC
74588	A0	A1	A2	A3	A4	A5	A6	A7	OE	GND	T/R	B7	B6	B5	B4	B3	B2	B1	B0	VCC
74589	B	C	D	E	F	G	H	GND	QH	QC	SRCK	RCK	SRLD	SER	A	VCC				
74590	QB	QC	QD	QE	QF	QG	QH	GND	RCD	CLR	CLK	EC	RCK	G	QA	VCC				
74591	QB	QC	QD	QE	QF	QG	QH	GND	RCD	CLR	CLK	EC	RCK	G	QA	VCC				
74592	IB	IC	ID	IE	IF	IG	IH	GND	RCD	CLR	CLK	EC	RCK	CLD	IA	VCC				
74593	ADA	B0B	C0C	D0D	E0E	F0F	G0G	H0H	CLD	GND	RCD	CLR	CLK	EC	EC	RCK	REK	G	G	VCC
74594	ADA	B0C	C0C	D0D	E0E	F0F	G0G	H0H	SLD	GND	QHP	SCLR	SCK	RCK	RCLR	SER	A	VCC		
74595	QA	QC	QD	QE	QF	QG	QH	GND	QHP	SCLR	SCK	RCK	G	SER	QA	VCC				
74596	QB	QC	QD	QE	QF	QG	QH	GND	QHP	SCLR	SCK	RCK	G	SER	QA	VCC				
74597	IB	IC	ID	IE	IF	IG	IH	GND	QHP	SCLR	SCK	RCK	SLD	SER	IA	VCC				
74598	ADA	B0B	C0C	D0D	E0E	F0F	G0G	H0H	SLD	GND	QHP	SCLR	SCK	SCKN	RCK	G	SER1	SER0	DS	VCC
74599	QA	QC	QD	QE	QF	QG	QH	GND	QHP	SRCK	RCK	RCLR	SER	A	VCC					
74600	BUSY	A0	A1	A2	A3	A4	A5	A6	4K/16K	GND	RASHI	RASLO	RE01	RE02	RAS	HOLD	LRCO	RRCO	RCBT	VCC
74601	BUSY	A0	A1	A2	A3	A4	A5	A6	A7	GND	RASHI	RASLO	RE01	RE02	RAS	HOLD	LRCO	RRCO	RCBT	VCC
74602	BUSY	A0	A1	A2	A3	A4	A5	A6	4K/16K	GND	RASHI	RASLO	RE01	RE02	RAS	HOLD	REDY	RCCS	RCBT	VCC
74603	BUSY	A0	A1	A2	A3	A4	A5	A6	A7	GND	RASHI	RASLO	RE01	RE02	RAS	HOLD	REDY	RCCS	RCBT	VCC
74604	CLK	A/B	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B6
	A8	B7	A7	B6	A6	B5	A5	VCC												
74605	CLK	A/B	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B6
	A8	B7	A7	B6	A6	B5	A5	VCC												
74606	CLK	A/B	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B6
	A8	B7	A7	B6	A6	B5	A5	VCC												
74607	CLK	A/B	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B6
	A8	B7	A7	B6	A6	B5	A5	VCC												
74608	PREQ	P/N	R/W	R/W	R/W	RSEN	RAS	GND	CAS	CASH	R/CCL	RAH	SRT	Reftr	CASLO	VCC				
74610	RS2	M3	RS3	C3	STRB	R/W	D0	D1	D2	D3	D4	D5	MM	MO0	M01	M02	M03	M04	M05	GN
	ME	M06	M07	M08	M09	M010	M011	C	D6	D7	D8	D9	D10	D11	M00	M01	M02	M03	M04	GN
74611	RS2	M3	RS3	C3	STRB	R/W	D0	D1	D2	D3	D4	D5	MM	MO0	M01	M02	M03	M04	M05	GN
	ME	M06	M07	M08	M09	M010	M011	C	D6	D7	D8	D9	D10	D11	M00	M01	M02	M03	M04	GN
74612	RS2	M3	RS3	C3	STRB	R/W	D0	D1	D2	D3	D4	D5	MM	MO0	M01	M02	M03	M04	M05	GN
	ME	M06	M07	M08	M09	M010	M011	NC	D6	D7	D8	D9	D10	D11	M00	M01	M02	M03	M04	GN
74613	RS2	M3	RS3	C3	STRB	R/W	D0	D1	D2	D3	D4	D5	MM	MO0	M01	M02	M03	M04	M05	GN
	ME	M06	M07	M08	M09	M010	M011	NC	D6	D7	D8	D9	D10	D11	M00	M01	M02	M03	M04	GN

• 74C • 74F • 74H • 74L • 74S • 74ALS

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• 74HC • 74LS • 74S • 74ALS • 74HCT

PINS ⇐	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74618 LS	1A	1B	NC	1C	1D	1Y	2A	2B	NC	GND	2Y	1C	2C	2D	3Y	3A	3B	3C	3D	VCC
74619 LS	1A	1Y	NC	2A	2Y	3A	3Y	4A	4Y	GND	5Y	5A	6Y	6A	7Y	7A	8Y	8A	VCC	
74620 MS LS ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	GBA	VCC
74621 MS LS ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	GBA	VCC
74622 MS LS ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	GBA	VCC
74623 MS LS ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	GBA	VCC
74624 LS	OGND	RAN	CX1	CX2	EN	QY	GND	OZ	VCC	NC	NC	NC	FREQ	OVCC						
74625 LS	GND	Q12	Q1Y	1CX1	1CX2	1FREQ	1VCC	1GND	2GND	2VCC	2FREQ	2CX2	2CX1	Q2Y	Q2Z	VCC				
74626 LS	GND	Q12	Q1Y	1EN	1CX1	1CX2	OVCC	OGND	1FREQ	2FREQ	2CX2	2CX1	2EN	Q2Y	Q2Z	VCC				
74627 LS	1VCC	1FREQ	1CX1	1CX2	1GND	Q1Y	GND	Q2Y	2GND	2CX2	2CX1	2FREQ	2VCC	VCC						
74628 LS	OGND	RAN	CX1	CX2	EN	QY	GND	OZ	VCC	NC	ReXt	ReXt	FREQ	OVCC						
74629 LS	FREQ2	FREQ1	RAN1	1CX1	1CX2	1EN	Q1Y	OGND	GND	Q2Y	2EN	2CX1	2CX2	RAN2	OVCC	VCC				
74630 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB10	DB11	GND	DB12	DB13	DB14	DB15	CB5	CB4
	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC												
74631 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB10	DB11	GND	DB12	DB13	DB14	DB15	CB5	CB4
	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC												
74632 MS	LEDB	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	DEB0	DB6	DB7	GND	DB8	DB9	DEB1	DB10	DB11	DB12	DB13
	DB14	DB15	CB6	CB5	CB4	DECB	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DEB2	DB22	DB23	GND	
	DB24	DB25	DEB3	DB26	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC								
74633 MS	LEDB	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	DEB0	DB6	DB7	GND	DB8	DB9	DEB1	DB10	DB11	DB12	DB13
	DB14	DB15	CB6	CB5	CB4	DECB	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DEB2	DB22	DB23	GND	
	DB24	DB25	DEB3	DB26	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC								
74634 MS	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	DEB0	DB6	DB7	GND	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15
	CB6	CB5	CB4	DECB	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	DB22	DB23	GND	DB24	DB25	DB26
	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC												
74635 MS	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	DEB0	DB6	DB7	GND	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15
	CB6	CB5	CB4	DECB	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	DB22	DB23	GND	DB24	DB25	DB26
	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC												
74636 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	GND	CB4	NC	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC
74637 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	GND	CB4	NC	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC
74638 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74639 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74640 MS LS ALS MS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74641 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74642 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74643 MS LS ALS MS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74644 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74645 MS LS ALS	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	VCC
74646 MS LS ALS	CAB	SAB	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	G	SBA	CBA	VCC																
74647 MS LS	CAB	SAB	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	G	SBA	CBA	VCC																
74648 MS LS ALS	CAB	SAB	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	G	SBA	CBA	VCC																
74649 MS LS	CAB	SAB	D1R	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	G	SBA	CBA	VCC																
74651 MS LS ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	GBA	SBA	CBA	VCC																
74652 MS LS ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	GBA	SBA	CBA	VCC																
74653 MS LS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	GBA	SBA	CBA	VCC																
74654 MS LS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	GBA	SBA	CBA	VCC																
74668 LS	U/D	CLK	A	B	C	D	ENP	GND	LD	ENT	QD	QC	QB	QA	RCD	VCC				
74669 LS	U/D	CLK	A	B	C	D	ENP	GND	LD	ENT	QD	QC	QB	QA	RCD	VCC				
74670 LS	D2	D3	D4	R8	RA	Q4	Q3	GND	Q2	Q1	EPD	EWT	WB	WA	D1	VCC				
74671 LS	SERR	SROCK	A	B	C	D	SERR	SROCK	RCK	GND	R/S	G	SI	SO	QD	QC	QB	QA	CASC	VCC
74672 LS	SERR	SROCK	A	B	C	D	SERR	SROCK	RCK	GND	R/S	G	SI	SO	QD	QC	QB	QA	CASC	VCC
74673 LS	CS	SHCP	R/W	SCLR	MSOR	SQ15	Y0	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
	Y13	Y14	Y15	VCC																
74674 LS	CS	CLK	R/W	NC	MOD	SQ15	P0	P1	P2	P3	P4	GND	P5	P6	P7	P8	P9	P10	P11	P12
	P13	P14	P15	VCC																

• 74C • 74F • 74H • 74L • 74S • 74ALS

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• 74HC • 74LS • 74S • 74ALS • 74HCT

PINS ⇐	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74675 _{MS}	CS	SHCP	R/W	SI	STCP	SO	Q0	Q1	Q2	Q3	Q4	GND	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
	Q13	Q14	Q15	VCC																
74677 _{MS}	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	GND	A12	A13	A14	A15	A16	P0	P1	P2
	P3	Y	G	VCC																
74678 _{MS}	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	GND	A12	A13	A14	A15	A16	P0	P1	P2
	P3	Y	C	VCC																
74679 _{MS}	A1	A2	A3	A4	A5	A6	A7	A8	A9	GND	A10	A11	A12	P0	P1	P2	P3	Y	G	VCC
74680 _{MS}	A1	A2	A3	A4	A5	A6	A7	A8	A9	GND	A10	A11	A12	P0	P1	P2	P3	Y	C	VCC
74681 _{LS}	CLK	RS2	RS1	RS0	LI/RO	Cn	G	Cn+4	P	GND	I/O3	I/O2	I/O1	I/O0	M	AS2	AS1	AS0	R/I/O	VCC
74682 _{LS}	PQ	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74683 _{LS}	PQ	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74684 _{LS}	PQ	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74685 _{LS}	PQ	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74686 _{LS}	PQ	G1	P0	Q0	P1	Q1	NC	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	NC	P7
	Q7	P=Q	G2	VCC																
74687 _{LS}	PQ	G1	P0	Q0	P1	Q1	NC	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	NC	P7
	Q7	P=Q	G2	VCC																
74688 _{MS, LS, ALS, MS}	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74689 _{MS, LS}	G	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74690 _{LS}	CCLR	CKK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74691 _{LS}	CCLR	CKK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74692 _{LS}	CCLR	CKK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74693 _{LS}	CCLR	CKK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74694 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74695 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74696 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74697 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74698 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74699 _{LS}	U/D	CKK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	G	LD	ENT	QD	QC	QB	QA	RCD	VCC
74700 _{LS}	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74715 _{LS}	Q3	D3	PE	GAT	D0	CK	Q0	GND	Q1	MR	D1	BUS	R	D2	Q2	VCC				
74716 _{LS}	Q3	D3	PE	GAT	D0	CK	Q0	GND	Q1	MR	D1	BUS	R	D2	Q2	VCC				
74730 _{LS}	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74731 _{LS}	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74734 _{LS}	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74756 _{MS}	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74757 _{MS}	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74758 _{MS}	GAB	NC	A1	A2	A3	A4	GND	B4	B3	B2	B1	NC	GBA	VCC						
74759 _{MS}	GAB	NC	A1	A2	A3	A4	GND	B4	B3	B2	B1	NC	GBA	VCC						
74760 _{MS}	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74762 _{MS}	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74763 _{MS}	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74793 _{LS}	OE	D0	D1	D2	D3	D4	D5	D6	D7	GND	G	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	VCC
74794 _{LS}	OE	D0	D1	D2	D3	D4	D5	D6	D7	GND	G	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	VCC
74795 _{LS}	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74796 _{LS}	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74797 _{LS}	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74798 _{LS}	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74800 _{MS}	1A	2A	2B	2C	2D	3A	3B	3C	3D	GND	3Z	3Y	2Z	1Z	1Y	1B	1C	1D	1VCC	
74802 _{MS}	1A	2A	2B	2C	2D	3A	3B	3C	3D	GND	3Z	3Y	2Z	1Z	1Y	1B	1C	1D	1VCC	
74804 _{MS, MS}	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74805 _{MS, MS}	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74808 _{MS, MS}	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74810 _{MS, MS}	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74811 _{MS, MS}	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74821 _{MS}	OC	1D	2D	3D	4D	5D	6D	7D	8D	9D	10D	GND	CLK	100	90	80	70	60	50	40
	3D	2D	1D	VCC																
74822 _{MS}	OC	1D	2D	3D	4D	5D	6D	7D	8D	9D	10D	GND	CLK	100	90	80	70	60	50	40
	3D	2D	1D	VCC																
74823 _{MS}	OC	1D	2D	3D	4D	5D	6D	7D	8D	9D	CLR	GND	CLK	CKEN	90	80	70	60	50	40
	3D	2D	1D	VCC																
74824 _{MS}	OC	1D	2D	3D	4D	5D	6D	7D	8D	9D	CLR	GND	CLK	CKEN	90	80	70	60	50	40
	3D	2D	1D	VCC																
74825 _{MS}	OC1	OC2	1D	2D	3D	4D	5D	6D	7D	8D	CLR	GND	CLK	CKEN	80	70	60	50	40	30
	2D	1D	OC3	VCC																

INTEGRATED CIRCUIT PIN-OUTS

• STATIC RAMS • DYNAMIC RAMS • EPROMS • Z80, A, B SERIES

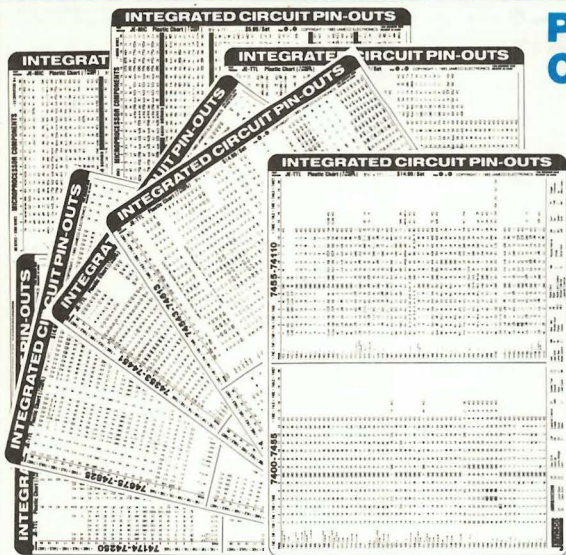
PINS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STATIC RAMS																				
2101 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	D11	D01	D12	D02	D03	D04	D04	CE2	OD	CE1	R/W	
	A4	VCC																		
2102 (N, L)	A6	A5	R/W	A1	A2	A3	A4	A0	GND	VCC	D1	D0	CE	A9	A8	A7				
2111 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	OD	CE2	I/O1	I/O2	I/O3	I/O4	CE1	R/W	A4	VCC		
2112 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	I/O1	I/O2	I/O3	I/O4	CE	R/W	A4	VCC				
2114 (C, N, L)	A6	A5	A4	A3	A0	A1	A2	CS	GND	WE	I/O4	I/O3	I/O2	I/O1	A9	A8	A7	VCC		
2147 (N)	A0	A1	A2	A3	A4	A5	DQ	WE	GND	CS	Din	A11	A10	A9	A8	A7	A6	VCC		
2148 (N)	A6	A5	A4	A3	A0	A1	A2	CS	GND	WE	I/O4	I/O3	I/O2	I/O1	A9	A8	A7	VCC		
5101 (E, L)	A3	A2	A1	A0	A5	A6	A7	GND	D11	D10	D12	D02	D03	D04	D04	CE2	OD	CE1	R/W	
	A4	VCC																		
6116 (P, LP)	A7	A6	A5	A4	A3	A2	A1	A0	I/O1	I/O2	I/O3	GND	I/O4	I/O5	I/O6	I/O7	I/O8	CS	A10	OE
	WE	A9	A8	VCC																
6264 (P, LP)	NC	A12	A7	A6	A5	A4	A3	A2	A1	A0	I/O1	I/O2	I/O3	GND	I/O4	I/O5	I/O6	I/O7	I/O8	CS1
	A10	OE	A11	A9	A8	CS2	WE	VCC												
DYNAMIC RAMS																				
4116	VBB	Din	WR	RAS	A0	A2	A1	VDD	VCC	A5	A4	A3	A6	DQ	CAS	VSS				
4164	NC	Din	WE	RAS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	DQ	CAS	VSS				
4128 (48128)	WE	Din	WE	RAS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	DQ	CAS	VSS				
5262	VBB	NC	R/W	DQ	VDD	A5	A6	A7	A8	A9	A10	A0	A1	A2	A3	CLK2	CLK3	CLK1	VSS	
	Din	CS																		
41256	A8	Din	WR	RAS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	Dout	CAS	VSS				
EPROMS																				
1702	A2	A1	A0	D01	D02	D03	D04	D05	D06	D07	D08	VCC	PROG	CS	VBB	VGG	A7	A6	A5	A4
	A3	VCC	VCC	VDD																
TMS2516	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	PO/PM	A10	CS
	VPP	A9	A8	VCC																
TMS2532	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	A11	A10	PO/PM
	VPP	A9	A8	VCC																
TMS2564	VPP	CS1	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	A11
	A10	PO/PM	A12	A9	A8	VCC+CS2	VCC													
2708	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	PGM	VDD	CS/W
	VBB	A9	A8	VCC																
TMS2716	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	CS(PG)	VDD	A10
	VBB	A9	A8	VCC(PG)																
2716,C	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE	A10	OE
	VPP	A9	A8	VCC																
2732,A,C	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE	A10	OE/VPP
	A11	A9	A8	VCC																
2764,C	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE
	A10	OE	A11	A9	A8	NC	PGM	VCC												
2816	A7	A6	A5	A4	A3	A2	A1	A0	I/O00	I/O01	I/O02	GND	I/O03	I/O04	I/O05	I/O06	I/O07	CE	A10	OE
	VPP	A9	A8	VCC																
2817	RY/BS	NC	A7	A6	A5	A4	A3	A2	A1	A0	I/O00	I/O01	I/O02	GND	I/O03	I/O04	I/O05	I/O06	I/O07	CE
	A10	OE	NC	A9	A8	NC	WE	VCC												
27128	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE
	A10	OE	A11	A9	A8	A13	PGM	VCC												
27256	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE
	A10	OE	A11	A9	A8	A13	A14	VCC												
27512	A15	A12	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	CE
	A10	OE/VPP	A11	A9	A8	A13	A14	VCC												
MCM68764	A7	A6	A5	A4	A3	A2	A1	A0	DQ0	DQ1	DQ2	VSS	DQ3	DQ4	DQ5	DQ6	DQ7	A11	A10	E/VPP
	A12	A9	A8	VCC																
Z80, A, B SERIES																				
Z80,A,B	A11	A12	A13	A14	A15	CLK	D4	D3	D5	D6	+5V	D2	D7	D0	D1	INT	NMI	HALT	MREQ	I/OREQ
	D0	WR	BUS	WAIT	BUSR	RE	MT	RFSH	GND	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Z80-CTC	D4	D5	D6	D7	GND	RD	ZC/T02	ZC/T01	ZC/T02	I/OREQ	IEO	INT	IEI	MT	CLK	CE	RE	CS0	CS1	CKV13
	CKV12	CKV11	CKV10	+5V	D0	D1	D2	D3												
Z80-DART	D1	D3	D5	D7	INT	IEI	IEO	MT	VDD	WR	R/A	RxD	RxTx	TxTx	TxD	DTR	RTS	CTS	DCDA	CLK
	RE	DCDB	CTSB	RTSB	DTRB	TxD	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB	RxB
Z80-DMA	A5	A4	A3	A2	A1	A0	CLK	WR	RD	I/OREQ	+5V	MREQ	BA0	BA1	BUSR	CEVNT	A15	A14	A13	A12
	A11	A10	A9	A8	RDY	MT	D7	D6	D5	GND	D4	D3	D2	D1	D0	IEO	INT/P	IEI	A7	A6

• Z80,A,B SERIES • 6500 SERIES MICROPROCESSOR COMPONENTS • 68000 SERIES

PINS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Z80-PIO	D2	D7	D6	CE	C/D	B/A	A7	A6	A5	A4	GND	A3	A2	A1	A0	ASTB	BSTB	ARDY	D0	D1
	BRODY	IEO	INT	IEI	CLK	+5V	B0	B1	B2	B3	B4	B5	B6	B7	RD	I/OREQ	MT	D5	D4	D3
Z80-SIO/0	D1	D3	D5	D7	INT	IEI	IEO	MT	+5V	WR/RA	SYNA	RxD	RxC	TxC	TxD	DTR	RTS	CTS	DCDA	CLK
	RE	DCDB	CTSB	RTSB	DTRB	TxD	RxB	RxB	RxB	RxB	RxB	RxD	RxC	B/A	CE	I/ORD	D6	D4	D2	D0
Z80-SIO/1	D1	D3	D5	D7	INT	IEI	IEO	MT	+5V	WR/RA	SYNA	RxD	RxC	TxC	TxD	DTR	RTS	CTS	DCDA	CLK
	RE	DCDB	CTSB	RTSB	DTRB	TxD	RxB	RxB	RxB	RxB	RxB	RxD	RxC	B/A	CE	I/ORD	D6	D4	D2	D0
Z80-SIO/2	D1	D3	D5	D7	INT	IEI	IEO	MT	+5V	WR/RA	SYNA	RxD	RxC	TxC	TxD	DTR	RTS	CTS	DCDA	CLK
	RE	DCDB	CTSB	RTSB	DTRB	TxD	RxB	RxB	RxB	RxB	RxB	RxD	RxC	B/A	CE	I/ORD	D6	D4	D2	D0
6500 SERIES																				
6502,A,B	VSS	RDY	01(Q)	IRQ	NC	NMI	SYNC	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AB10	AB11
	VSS	AB12	AB13	AB14	AB15	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	R/W	NC	00(Q)	02(Q)	RES		
6520	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	R/W	CS0	CS2	CS1	02	D7	D6	D5	D4	D3	D2	D1	D0	RES	RS1	RS0	I/OREQ	IRQA	CA2	CA1
6522	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	IRQ	R/W	CS2	CS1	02	D7	D6	D5	D4	D3	D2	D1	D0	RES	RS3	RS2	RS1	RS0	CA2	CA1
6545	GND	RES	LPEN	CC0/0	CC1/1	CC2/2	CC3/3	CC4/4	CC5/5	CC6/6	CC7/7	CR0/8	CR1/9	CR2/10	CR3/11	CR4/12	CR5/13	DISE	CUR	VCC
	CLK	R/W	02	RS	CS	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	RA4	RA3	RA2	RA1	RA0	HSYN	VSYN
6551	GND	CS0	CS1	RES	RxC	XTL1	XTL2	HTS	CTS	TxD	DTR	RxD	RS0	RS1	VCC	DCD	DSR	DB0	DB1	DB2
	DB3	DB4	DB5	DB6	DB7	IRQ	02	R/W												
6800, A, B SERIES																				
6800,A,B	VSS	HALT	01	IRQ	VMA	NMI	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
	VSS	A12	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/W	NC	DBE	02	NC	TSC	RE
6802	VSS	HALT	MR	IRQ	VMA	NMI	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
	VSS	A12	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/W	VCC	RE	E	XTL	EXTL	RE
6809,A,B	VSS	NMI	IRQ	FRQ	BS	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/W	DMA/B	E	Q	MKDY	RE	EXTL	XTL	HALT
6809E,A,B	VSS	NMI	IRQ	FRQ	BS	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/W	BUSY	E	Q	AVMA	RE	LIC	TSC	HALT
6810,A,B	GND	D0	D1	D2	D3	D4	D5	D6	D7	CS0	CS1	CS2	CS3	CS4	CS5	R/W	A6	A5	A4	A3
	A2	A1	A0	VCC																
6821,A,B	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	R/W	CS0	CS2	CS1	E	D7	D6	D5	D4	D3	D2	D1	D0	RE	RS1	RS0	I/OREQ	IRQA	CA2	CA1
6830L,B	GND	D0	D1	D2	D3	D4	D5	D6	D7	CS1	CS0	VCC	CS2	CS3/R	A9	A8	A7	A6	A5	A4
	A3	A2	A1	A0																
6845,A,B	GND	RE	LPS	MA0	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8	MA9	MA10	MA11	MA12	MA13	DE	CUR	VCC
	CLK	R/W	E	RS	CS	D7	D6	D5	D4	D3	D2	D1	D0	RA4	RA3	RA2	RA1	RA0	HS	VS
6850,A,B	VSS	RxD	RxC	TxC	RTS	TxD	IRQ	CS0	CS2	CS1	RS	VCC	R/W	E	D7	D6	D5	D4	D3	D2
	D1	D0	DCD	CTS																
6860	VSS	TxD	RxB	AMP	ELIS	ESS	TxD	TxB	BKR	TxC	F0	VCC	XTAL	RxR	MODE	ST	RxC	TST	Ri	OTR
	SH	ESD	CTS	RxD																
6880A (8T26A)	REI	RQ1	BUS1	DR11	RQ2	BUS2	DR12	GND	DR13	BUS3	RQ3	D4	BUS4	RQ4	DREI	VCC				
Z8000 SERIES																				
Z8001B	AD0	AD9	AD10	AD11	AD12	AD13	STP	MT	AD15	AD14	+5V	V1	NV1	SEG1	NMI	RE	M0	MREQ	DS	ST3
	ST2	ST1	S0	SN3	SN1	S0	BUSR	WAIT	BUSA	R/W	N/S	R/W	RES	AS	CLK	GND	SN2	A01	A02	A03
	AD5	SN4	AD4	AD6	AD7	SN5	SN6	AD8												
Z8002B	AD9	AD10	AD11	AD12	AD13	STP	MT	AD15	AD14	+5V	V1	NV1	NMI	RE	M0	MREQ	DS	ST3	ST2	ST1
	ST0	BUSR	WAIT	BUSA	R/W	N/S	R/W	RES	AS	CLK	GND	A01	A02	A03	A05	A04	A06	A07	A08	A09
Z8030A	AD9	AD10	AD13	AD7	INT	IEO	IEI	INTA	+5V	WR/RA	SYNA	RxC	RxD	TxC	TxD	DTR/A	RTSA	CTSA	DCDA	PALCO
	DCDB	CTSB	RTSB	DTR/B	TxD	RxB	RxB	RxB	RxB	RxB	RxB	CS1	CS0	R/W	AS	CS1	CS0	A0	A01	A02
Z8036A	AD9	AD5	AD6	AD7	DS	R/W	GND	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	PCLCK	IEI	IEO	AD0	PC1
	PC2	PC3	+5V	INT	INTC	PA7	PA6	PA5	PA4	PA3	PA2	PA1	PA0	AS	CS1	CS0	A0	A01	A02	A03
68000 SERIES																				
68000 L&B, L&B, L&B L12	D4	D3	D2	D1	D0	AS	UDS	LDS	R/W	DTAK	B6	BGAK	BR	VCC	CLK	GND	HALT	RE	VMA	E
	VPA	BER	IPL2	IPL1	IPLO	FC2	F1	FC0	A1	FC0	A1	A5	A4	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	A16	A17	A18	A19	A20	VCC	A21	A22	A23	GND	D15	D14	D13	D12	D11	D10	D9
	D7	D6	D5																	
68488,A,B	VSS	DMAG	CS	ASE	R/W	E	DB0	DB1	DB2	DB4	DB5	DB6	DB7	DMAR	DAV	DAC	RF0	RE	VCC	
	IPC	REN	SRO	TRIG	EIO	ATN	1/R2	1/R1	IB7	IB6	IB5	IB4	IB3	IB2	IB1	IB0	RS0	RS1	RS2	IR0
68652, (-2)	CE	Rx	RSd	SIF	RxA	RxD	RA	GB	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15	R/W	A2	A1	
	A0	BYTE	DBEN	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	VCC	RE	TxA	TxBE	TU	TxE	TSD	Tc	MM
68651,A,B,C	D2	D3	D4	GND	D4	D5	D6	D7	TxC/S	A1	CE	A0	R/W	RxRY	TxRY	DCD	CTS	TxD	Tc	BRCK
	RE	DSR	RTS	DTR	RxD	RxB	RxB	RxB												

INTEGRATED CIRCUIT PIN-OUTS

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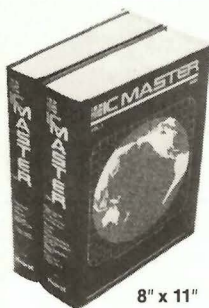
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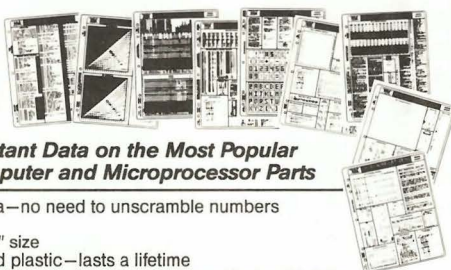
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Instant Help for the Most Popular Software!

- Easy for beginners; handy for experts.
- The Reference side shows the most important commands.
- The Review side describes program capabilities and operation.
- Non-glare styrene cards are handy (8½" x 11") and durable.
- Digital Reference data—explanations and tables for RS-232C interfacing, Binary/ASCII/Hex/Decimal conversion, binary numbering, logical operators, and much more.
- IBM PC DOS 2.1 Reference Card—Instructional reference for IBM PC, XT and compatibles.
- Lotus 1-2-3 Reference Card—Instructional reference for the Lotus 1-2-3 integrated spreadsheet system.



Part No.	Description	Price
ME1011	The CP/M® System.	\$4.95
ME1012	Digital Reference Card.	\$4.95
ME1014	WordStar®.	\$4.95
ME1015	VisiCalc®.	\$4.95
ME1016	dBASE II®.	\$4.95
ME1017	IBM PC DOS 2.1 Reference Card.	\$4.95
ME1018	Lotus 1-2-3 Reference Card.	\$4.95

DATA BOOKS

TEXAS
INSTRUMENTS



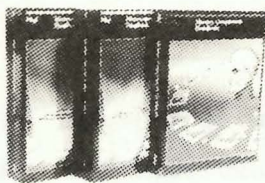
7" x 9"



NEW!

Part No.	Description	Price
30024	Understanding Data Communications (1984). \$14.95 Contains information on the codes used for data communication, the types of messages and the transmission channels, including fiber optics and satellites. Learn how asynchronous and synchronous modems work and how they interface to the terminal equipment. Also, find out about protocols, error control, local area and pack networks. (272 pages).	
30025	Understanding Telephone Electronics (1984). \$14.95 Contains information on how the conventional telephone system works and how the parts of the system are gradually being replaced by state-of-the-art electronics. Subjects include speech circuits, dialing, ringing, central office electronics, microcomputers, digital transmission, network transmission, modems and new cellular phones. (288 pages).	
30026	Understanding Solid State Electronics (1984). \$14.95 Contains information on complex concepts such as electricity, semiconductor theory, how electronic circuits make decisions and how integrated circuits are made. It helps you develop a basic knowledge of semiconductors and solid state electronics. Equally suitable as an introduction to electronics or as a review. (286 pages).	
30027	Understanding Microprocessors (1984). \$14.95 Contains information on actual applications of 4-, 8- and 16-bit microcomputers, software, programs, programming concepts and assembly language. Excellent individualized learning format for the newcomer who wants to know what microprocessors are and how they work, or a quick review for the practitioner. (286 pgs.).	

intel®



New Releases!

7" x 9"

Part No.	Description	Price
205775	MCS®-80/85 Family User's Manual (1984). \$9.95 Contains detailed functional descriptions for the installation and operation of microcomputer systems based on Intel's 8080 and 8085 microprocessors. Device specifications included (208 pages).	
210912	iAPX 86/88, 186/188 User's Manual (1984). \$21.95 Technical manual on 8086/8088, 80186/80188 microprocessors. Also information on 8087 and 8089. (448 pages).	
230730	Telecommunications Products Handbook (1984). \$11.95 Contains schematic drawings, application notes, data sheets and article reprints on digital telecommunications switching systems, code-decoders, pulse code modulation equipment, telecommunication filters and signal processors (2920/2921). Special section on 2970 Single-Chip FSK Modem (224 pages).	
210830	Intel Memory Components Handbook (1983/1984). . . . \$14.95 Contains all Applications Notes, Article Reprints, Data Sheets, & other design information on Intel's RAMS, DRAMS, EPROMs, & EEPROMs & Bubble Memories. (580 pages).	
230843	Intel Microsystem Components Handbook (1983/1984) \$19.95 Contains Data Sheets on all of Intel's Microprocessors and peripherals - 2 volumes (2575 pages).	
290005	CHMOS Components Handbook (1985). \$11.95 Contains data sheets on microprocessor, peripheral, microcontroller and memory CHMOS components. Examples include 27C64, 51C64, 29C14, 80C49, 80C86, etc. (400 pages).	
210918	Microcontroller Handbook (1985). \$17.95 Contains data sheets and application notes on three specific families of Intel microcontrollers (8048, 8051, 8095) along with a special chapter on microcontroller design with CMOS technology. (800 pages).	
210960	Yellow Pages Software & Services Directory (1985). . . . \$4.95 The third edition of the Intel Yellow Pages lists more than 2000 products and services from almost 300 companies. Product and service listings are organized under 10 categories: Applications, Communications, Consulting Services, Data Base, Development Aids, Entertainment, Graphics, Languages, Operating Systems and Software. (230 pages). Size: (9" x 11")	



7" x 9"

National
Semiconductor



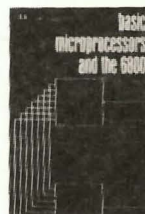
Part No.	Description	Price
30003	Linear Data Book (1982). \$14.95 Applications, features and diagrams include detailed sections for voltage regulators, op amps, voltage comparators, A-to-D and D-to-A converters, industrial blocks, and audio, radio and TV circuits (1952 pages).	
30005	Logic Data Book (1984) Volume II. \$14.95 Contains information on National's TTL product line. This includes 7400, 74L, S, AS, LS and ALS Series devices (1883 pages).	
30014	Intuitive IC CMOS Evolution (1984). \$10.95 This book chronicles an industry in dramatic change...from early IC's to micro CMOS technology and CAD for VLSI. A vital aid to engineers and industry observers who need to plan for the future before it arrives (165 pages).	
30015	Intuitive IC Op Amps (1984). \$15.95 More complex linear IC products suggest a greater need for information about op amps. This book fills this need...from basics to key op amp application circuits (297 pages).	
30016	Voltage Regulator Handbook (1982). \$6.95 Contains data to simplify the task of selecting an appropriate three-terminal regulator for your specific system's needs. Also - heat sink selection and design, power transformer and filter specifications and various extended use applications (320 pages).	
30017	MOS Memory Data book (1984). \$5.95 Contains information on RAMs, EPROMs and EEPROMs (212 pgs).	
30018	CMOS (74HC, RAMs, & PROMs) Data Book (1984). . . . \$11.95 Contains data on 74HC series, LSI/VLSI CMOS, Filters, Converters, Display controllers/drivers, RAMs, PROMs, COPS Micro-controllers, 8-bit Microprocessors and Development Systems products (1520 pages).	
30019	Interface, Bipolar LSI, Bipolar Memory, Programmable Logic Data Book (1983). \$11.95 Contains complete specifications on these high technology products, as well as applications information, product selection and cross reference guides (1510 pages).	
30021	Logic Data Book (1984) Volume I. \$14.95 Contains data on CD4000 family, MM54HC/74HC/54HCT/74HCT High Speed Micro CMOS family, MM54C/74C family, and CMOS LSI/VLSI (1602 pages).	
30022	Logic Data Book Set (1984). \$24.95 Volume I (30021) and Volume II (30005) - (3485 pages).	
Buy the Logic Data Book Set Volume I (30021) and Volume II (30005) and SAVE \$4.95!		
30023	Switched-Capacitor Filter Handbook (1985). \$9.95 This handbook explains the operation and application of National's switched-capacitor filters. Includes necessary tables, nomographs, a design program and data sheets on filters MF4-MF10. (282 pages).	



7" x 9"



7" x 9"



6" x 9"

INTERISIL

Zilog

MOTOROLA

Part No.	Description	Price
30009	Intersil Data Book (1985). \$9.95 Complete Line (1075 pages).	
30013	Zilog Data Book (1985). \$9.95 Microprocessors and Support Chips (1045 pages).	
M-Z80	Zilog Technical Manual. \$7.95 Technical Manual for Zilog Z80, Z80A. (75 pages).	
30028	Motorola 8-Bit Microprocessor Data Book (1983) \$8.95 Covers 8-Bit Microprocessors including M6800 and M6809 Families. Also peripheral interfaces and controllers. (860 pages).	
30029	Motorola MC6800 Data Book (1985) \$17.95 Covers MC6800 Microprocessor, support chips, addressing modes, system configurations and instruction set. Step-by-step procedures on how to build an M6800 system. (264 pages). Size: (6" x 9")	

NOTE: The Manufacturers of the Data Books DO NOT print new books each year. We will carry the most current editions.

• Quality Components • Competitive Pricing • Prompt Delivery • (415) 592-8097

IC SOCKETS

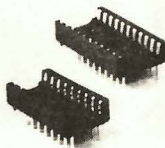
TO-3 SOCKETS & INSULATORS

HEADER PLUGS & COVERS

IC/SOCKET RAILS

IC Solderetail – Low Profile (Tin) Sockets

Part No.	1-9	10-99	100-999
8 pin LP.....	\$.13	\$.12	\$.11
14 pin LP.....	.15	.13	.11
16 pin LP.....	.17	.15	.13
18 pin LP.....	.25	.23	.21
20 pin LP.....	.28	.26	.23



Part No.	1-9	10-99	100-999
22 pin LP.....	\$.30	\$.28	\$.26
24 pin LP (6/10"W).....	.31	.30	.29
24 pin SLP (Skinny) 3/10"W.....	.55	.52	.49
28 pin LP.....	.39	.37	.35
40 pin LP.....	.49	.46	.43

Solderetail Standard (Tin)

14 pin ST.....	\$.37	\$.35	\$.33
16 pin ST.....	.39	.37	.35
18 pin ST.....	.49	.47	.45
20 pin ST.....	.55	.52	.49
22 pin ST.....	.59	.55	.52



24 pin ST.....	\$.59	\$.57	\$.55
28 pin ST.....	.75	.72	.69
36 pin ST.....	.89	.85	.81
40 pin ST.....	.99	.95	.89

Solderetail Standard (Gold)

8 pin SG.....	\$.39	\$.35	\$.29
14 pin SG.....	.49	.45	.39
16 pin SG.....	.55	.49	.45
18 pin SG.....	.65	.59	.51
20 pin SG.....	.75	.65	.59



22 pin SG.....	\$.79	\$.69	\$.65
24 pin SG.....	.79	.69	.65
28 pin SG.....	.95	.85	.75
36 pin SG.....	1.25	1.15	.99
40 pin SG.....	1.39	1.25	1.15

Wire Wrap Sockets (Gold) Level 3

8 pin WW.....	\$.55	\$.49	\$.45
10 pin WW.....	.65	.59	.55
14 pin WW.....	.69	.65	.59
14 pin TWW*.....	.49	.45	.39
16 pin WW.....	.75	.69	.65
16 pin TWW*.....	.55	.49	.45
18 pin WW.....	.85	.79	.75

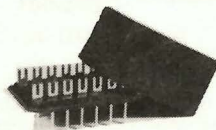


*TIN PLATING (TWW)

20 pin WW.....	\$.95	\$.89	\$.85
22 pin WW.....	.99	.95	.89
24 pin WW.....	1.19	1.09	.99
28 pin WW.....	1.39	1.29	1.19
36 pin WW.....	1.49	1.39	1.29
40 pin WW.....	1.79	1.69	1.59

Header Plugs (Gold)

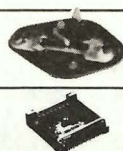
Part No.	1-9	10-99	100-999
14 pin HP.....	\$.55	\$.49	\$.45
16 pin HP.....	.59	.55	.49
20 pin HP.....	.79	.75	.69
24 pin HP.....	.99	.89	.79
28 pin HP.....	1.19	1.09	.99
40 pin HP.....	1.59	1.49	1.39



Header Covers

Part No.	1-9	10-99	100-999
14 pin HC.....	\$.15	\$.13	\$.12
16 pin HC.....	.19	.17	.15
20 pin HC.....	.29	.27	.25
24 pin HC.....	.29	.27	.25
28 pin HC.....	.45	.42	.39
40 pin HC.....	.49	.45	.42

Part No.	1-9	10-99	100-999
MP-3452-T (Socket).....	\$.35	\$.29	\$.25
ITO-3 (Metal Insulator).....	.09	.08	.07



Plastic TO-3 Socket and Metal Insulator

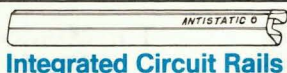
TO-3 Sockets and Metal Insulator for LM309K, LM320K, LM340K, etc.

Part No.	1-9	10-99	100-999
268-50-1102.....	\$16.95	\$14.95	\$12.95



TEXTOL 68 Lead Chip Carrier Socket

For 80186, 80188, and 80286 (IC's)

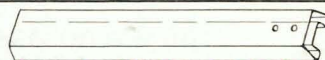


Integrated Circuit Rails

Part No.	Inches	Fits IC Packages	1-9	10-99	100
RIC-5	5"	8,14,16,18,20,22	\$.10	\$.08	\$.07
RIC-10	10"	8,14,16,18,20,22	.19	.15	.13
RIC-20	20"	8,14,16,18,20,22	.29	.25	.21
RIC-210	10"	24,28,36,40	.21	.19	.17
RIC-220	20"	24,28,36,40	.31	.28	.25

RRS-1 (Rubber Stops used to plug Plastic Rail ends).....

PLASTIC RAILS



Low Profile Socket Rails

Part No.	Inches	Fits Socket Pkgs.	1-9	10-99	100
RLP-10	10"	8,14,16,18,20,22	\$.19	\$.16	\$.13

Wire Wrap Socket Rails – Level 1-3

RWW-7	7"	24,28,36,40	.35	.29	.25
RWW-10	10"	8,14,16,18,20,22	.29	.25	.19
			.04	.03	.02

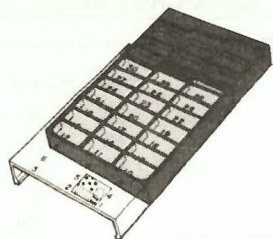
CONDUCTIVE FOAM

NCF-1 Conductive Foam (12" x 12" x 1/4") Hard Black. . . \$5.95 ea.

NCF-2 Conductive Foam (12" x 24" x 1/4") Hard Black. . . \$10.95 ea.



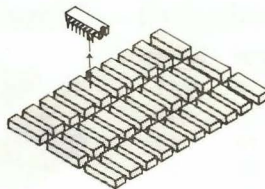
BUG BOX™ SYSTEMS



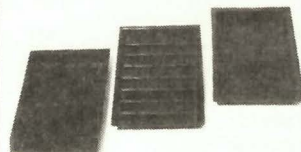
BUG BOX™



BUG CAGE™



BUG RUG™



BUG TRAY™

BUG BOX™ — 30 individual compartments • Stores sixty 8-pin or thirty 14- or 16-pin DIPs • Heavy duty injection molded plastic • Clear plastic cover slides and locks • Cover marked with numbers 1 thru 30 • Compartment size: 1" x .38" x .5" deep • Box size: 4.9" x 3.3" x .6" • Weight: 1.75 oz. (Bug Rugs not included.)

BUG BOX™

Please specify color code:

(B) Blue, (R) Red, (W) White, (Y) Yellow

PART NO./COLOR CODE	1-9	10+
BGX ()	\$1.79	\$1.59

ANTI-STATIC

BGXAS ()	\$2.49	\$2.25
-----------	--------	--------

LSI BIG BUG BOX™ — Designed to store large IC's, Resistors, Capacitors and Diodes • Divided into three compartments measuring 1" x 1.38" x .5" deep • Six vertical and six horizontal dividers included • Heavy duty injection molded plastic • Box size: 4.9" x 3.3" x .6" • Weight: 1.75 oz. (Bug Rugs not included.)

LSI BIG BUG BOX™

Please specify color code:

(B) Blue, (R) Red, (W) White, (Y) Yellow

PART NO./COLOR CODE	1-9	10+
BLX ()	\$2.49	\$2.25

ANTI-STATIC

BLXAS ()	\$3.49	\$3.19
-----------	--------	--------

BUG CAGE™ — Twelve locations store Bug Boxes, Big Bug Boxes or Bug Trays • Modular and interlocking • Heavy duty injection molded plastic • Each cage has six slip-on locations • Two cages per package • Cage size: 5 1/8" x 5" x 3 7/8" • Four colors available — *please specify color code:* (B) Blue, (R) Red, (W) White, (Y) Yellow

PART NO./COLOR CODE	PRICE
BGC () 2 Cages (6 locations each).	\$9.95/pair

CAGE COVER™ — Clear plastic snap-in cover to seal and hold six Bug Boxes or Bug Trays in place inside the Bug Cage.

PART NO.	PRICE
BGC-CVR.	\$3.49

BUG RUG™ — Static discharge protection for CMOS and MOSFET devices • Pre-cut to dimensions of BUG BOX (1" x .35") • The BRG-030 contains 30 foam rectangles • The BBR-006 package contains 6 foam rectangles 2.08" x 1".

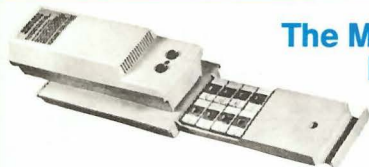
PART NO.	DESCRIPTION	PRICE
BGR-030	30 foam rectangles for one Bug Box.	\$1.98
BBR-006	6 foam rectangles for one LSI Big Bug Box.	\$1.98



Memorase® EPROM Erasers

Ultra-Violet
Products, Inc.

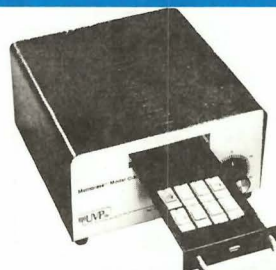
The Memorase DE-4 EPROM Eraser



1 Chip — 15 Minutes
8 Chips — 21 Minutes

Erases all EPROMs. Erases up to 8 chips within 21 minutes (1 chip in 15 minutes). Maintains constant exposure distance of 1". Special conductive foam liner eliminates static build-up. Built-in safety lock to prevent UV exposure. Only 9.0"L x 3.70"W x 2.60"H. Complete with holding tray for 8 chips. UV intensity: 6800 UW/CM².

PART NO.	DESCRIPTION	PRICE
DE-4	UV-EPROM Eraser.	\$74.95
UVS-11EL	Replacement Lamp for DE-4.	\$17.95



The Memorase C-25 EPROM Eraser

25 Chips — 10 Minutes

The C-25 erases up to 25 EPROMs in only 10 minutes. A 60-minute timer makes exposure settings easy. The C-25 erases and shuts itself off. The built-in safety interlock prevents operation unless the drawer is firmly closed. Size: 9"L x 9"W x 4.75"H • Wt: 11.3 lbs.

PART NO.	DESCRIPTION	PRICE
C-25	Eraser with Timer.	\$299.95
RGL-1	Replacement Grid Lamp for C-25.	\$149.95

FANS AND ACCESSORIES

HOWARD™ 4.68" Muffin-Style Fan



"Super Quiet" with virtually inaudible sound level.

• 60cfm (cubic feet per minute) • 4.68" square x 1.50" deep • Sleeve bearing • Venturi block-zinc frame • UL recognized • CSA certified
• Rating: 115VAC @ 50/60Hz - 21/18 Watts - .26/.23 Amps

MUF60 (SPN35-15-2462). \$9.95

EG&G ROTRON



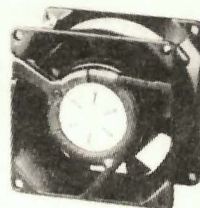
4.71" Muffin-Style Fan

The dependable, low cost, largest selling fan for commercial cooling applications.

• 105cfm (cubic feet per minute) • 4.71" square x 1.50" deep • Sleeve bearing • Zinc die casting • UL recognized • CSA certified • Acoustical rating as low as NC-43 • Rating: 115VAC @ 50/60Hz - 15/14 Watts - .19/.16 Amps • Mfg. may vary

Part No.	Description	Price
MU2A1-U	Fan, Cleaned & Tested (used). . . .	\$ 8.95
MU2A1-N	Fan, New.	\$14.95
MFG481	Zinc plated steel wire finger guard (For all Muffin-Style Fans).	\$1.95
MFF-1	Plastic finger guard filter (4.68" fans)	\$1.69

EG&G ROTRON



3.12" Sprite-Style Fan

"Super Quiet" with virtually inaudible sound level.

• 20cfm (cubic feet per minute) • 3.12" square x 1.64" deep • Sleeve bearing • Venturi block-zinc frame • UL recognized • CSA certified
• Rating: 115VAC @ 50/60Hz - 6/5 Watts - .07/.06 Amps • Manufacturer may vary

SU2C7. \$9.95

Torin



3.14" Sprite-Style Fan

• 35cfm (cubic feet per minute) • 3.14" square x 1.51" deep • Sleeve bearing • One piece zinc die casting • UL recognized • CSA certified
• Acoustical rating as low as NC-17 • Rating: 115VAC @ 50/60Hz - 9.8/8.7 Watts - .120/.104 Amps • Manufacturer may vary

Part No.	Description	Price
PWS2107U	Fan, Cleaned & Tested (used). . . .	\$ 8.95
PWS2107F	Fan, New.	\$14.95
SFG648	Zinc plated steel wire finger guard (For all Sprite-Style Fans).	\$ 1.79

HEAT SINKS



For TO-220 Case

• Black Anodized
• 1 1/8" L x 7/8" W x 3/16" H
• Aluminum

Part No.	1-9	10+
291-.36H	.25	.19



For TO-5 Case

• Black Anodized
• .72" x .250"
• Beryllium Copper
• Same as 2230B-5

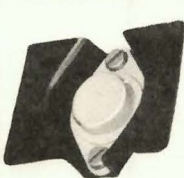
Part No.	1-9	10+
205-CB	.45	.39



For TO-220 Case

• Black Anodized
• 1" W x 1 1/8" H x 1/2" D
• For SCR's or Linear IC's

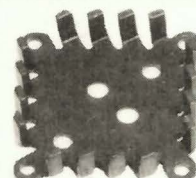
Part No.	1-9	10+
6030B	.35	.29



For TO-3 Case

• Black Anodized
• 1 1/2" L x 1 1/8" H x .48" D
• Compact - Low Profile
• #671-3B - 1.40" L
• #672-3B - 2.00" L

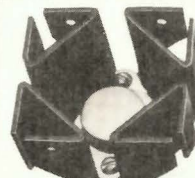
Part No.	1-9	10+
671-3B	.49	.45
672-3B	.55	.49



For TO-3 Case

• Black Anodized
• 1.81" L x 1.81" W x 1/8" H
• #6001B-2 - .50" H
• #6004B-2 - 1.25" H

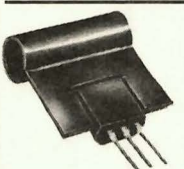
Part No.	1-9	10+
6001B-2	.89	.79
6004B-2	1.49	1.25



For TO-3 Case

• Black Anodized
• 1 7/8" L x 1 1/8" W x 1 1/4" H

Part No.	1-9	10+
690-TO3	.89	.75



For TO-202 Case

• Black Anodized
• .80" W x .85" H

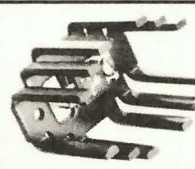
Part No.	1-9	10+
THM6047	.39	.35



For TO-3 Cases

• Black Anodized or
• Clear Aluminum
• 1.88" L x 1.375" W x 1/8" H

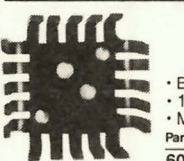
Part No.	Description	1-9	10+
6015C	Clear 1" H. . . . .	.59	.49
6016B	Black Anodized 1 1/4" H. . . . .	.65	.55



For TO-3/TO-220 Cases

• Black Anodized
• 1 5/8" L x 1 1/4" W x 1 1/4" H

Part No.	1-9	10+
LAT0127B	.99	.85



For TO-3 Case

• Black Anodized
• 1 3/4" L x 1 3/4" W x 1 1/4" H
• Material thickness: .062"

Part No.	1-9	10+
6054B	.99	.85



For TO-220 Case

• Black Anodized
• 1 3/4" L x 1 3/4" W x 1 1/4" H
• Material thickness: .062"
• Holds two TO-220 cases

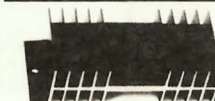
Part No.	1-9	10+
6083	.99	.85



For TO-3 Case

• Black Anodized
• 1 3/4" L x 1 3/4" W x 1" H

Part No.	1-9	10+
680-1.00	1.29	1.19



• Quality Aluminum (Black Anodized)
• 4 3/4" L x 1 1/2" W x 1 1/4" H
• UNDRILLED - You Drill Your Own

	1-9	10+
DUDE-3.	2.19	1.89



• Quality Aluminum (Black Anodized)
• 4 3/4" L x 1 1/2" W x 1 1/4" H
• Pre-Drilled for a TO-3 Case

	1-9	10+
DUDE-4.	2.39	2.19

DIODES

Description	PART NO.	Cross-Ref. to ECG	Vz VOLTS	W	IZT mA	ZZT@IZT Ohms	PRICE		
							1-99	100-999	1000+
ZENER DIODES DO-35 CASE	1N746	5005A	3.3	400m	20	28	4/.59	.12	.08
	1N751	5010A	5.1	400m	20	17	4/.59	.12	.08
	1N752	136A	5.6	400m	20	11	4/.59	.12	.08
	1N753	5013A	6.2	400m	20	7	4/.59	.12	.08
	1N754	140A	6.8	400m	20	5	4/.59	.12	.08
	1N757	5018A	9.0	400m	20	6	4/.59	.12	.08
	1N759	5021A	12.0	400m	20	30	4/.59	.12	.08
	1N959	5016A	8.2	400m	20	15	4/.79	.16	.13
	1N965	5024A	15.0	400m	8.5	16	4/.79	.16	.13
	1N5232	5011A	5.6	500m	20	11	4/.79	.16	.11
	1N5235	5014A	6.8	500m	20	5	4/.79	.16	.11
	1N5236	5015A	7.5	500m	20	6	4/.79	.16	.11
	1N5242	5021A	12.0	500m	20	30	4/.79	.16	.11
	1N5245	5024A	15.0	500m	8.5	16	4/.79	.16	.11
1 WATT ZENER DO-41 CASE	1N4729	134A	3.6	1w	69	10	4/.79	.16	.11
	1N4730	5067A	3.9	1w	64	9	4/.79	.16	.11
	1N4731	5068A	4.3	1w	58	9	4/.79	.16	.11
	1N4732	5069A	4.7	1w	53	8	4/.79	.16	.11
	1N4733	135A	5.1	1w	49	7	4/.79	.16	.11
	1N4734	136A	5.6	1w	45	5	4/.79	.16	.11
	1N4735	137A	6.2	1w	41	2	4/.79	.16	.11
	1N4736	5071A	6.8	1w	37	3.5	4/.79	.16	.11
	1N4738	5072A	8.2	1w	31	4.5	4/.79	.16	.11
	1N4742	142A	12.0	1w	21	9	4/.79	.16	.11
	1N4744	145A	15.0	1w	17	14	4/.79	.16	.11

DO-41 Case

DO-201A Case

TO-202
Case

TO-220
Case

DO-5
Case

179-01
Case

Description	PART NO.	Cross-Ref. to ECG	PIV V	if A	CASE	PRICE			
						1-99	100-999	1000+	
SWITCHING DIODE	1N3600	519	50	200m	DO-35	} Similar to DO-41	6/ .59	.08	.06
	1N4148 ^(1N914)	519	75	10m	DO-35		15/ .89	.05	.03
	1N4154	519	35	10m	DO-35		12/1.00	.07	.06
General Purpose DIODE	1N456	177	25	40m	DO-7	} Similar to DO-41	6/ .49	.07	.06
	1N458	177	150	7m	DO-7		6/1.00	.14	.11
	1N485	177	180	10m	DO-7		5/ .89	.15	.12
1 AMP/3 AMP SILICON RECTIFIERS	1N4001	116	50PIV	1 AMP	DO-41		12/1.00	.07	.05
	1N4002	116	100PIV	1 AMP	DO-41		12/1.09	.08	.06
	1N4003	116	200PIV	1 AMP	DO-41		12/1.19	.09	.07
	1N4004	116	400PIV	1 AMP	DO-41		12/1.29	.10	.08
	1N4005	116	600PIV	1 AMP	DO-41		10/1.09	.10	.08
	1N4006	125	800PIV	1 AMP	DO-41		10/1.19	.11	.09
	1N4007	125	1000PIV	1 AMP	DO-41		10/1.29	.12	.10
	1N5400	5800	50PIV	3 AMP	DO-201A		3/ .59	.17	.15
	1N5401	156	100PIV	3 AMP	DO-201A		3/ .69	.20	.18
	1N5402	5802	200PIV	3 AMP	DO-201A		3/ .79	.23	.21
	1N5404	5804	400PIV	3 AMP	DO-201A		3/ .89	.27	.24
	1N5406	5806	600PIV	3 AMP	DO-201A		3/ .99	.30	.27
	1N5408	5809	1000PIV	3 AMP	DO-201A		3/1.19	.35	.29
	12 AMP/20 AMP 35 AMP STUD RECTIFIERS	1N1183	5980	50PIV	35 AMP	DO-5		1.19	1.09	.99
1N1184		5982	100PIV	35 AMP	DO-5		1.29	1.19	1.09
1N1185		5986	150PIV	35 AMP	DO-5		1.39	1.29	1.19
1N1186		5986	200PIV	35 AMP	DO-5		1.49	1.39	1.29
1N1188		5990	400PIV	35 AMP	DO-5		1.95	1.79	1.55
1N1199A		5870	50PIV	12 AMP	DO-4	} Similar to DO-5	.59	.55	.49
1N1200A		5872	100PIV	12 AMP	DO-4		.69	.65	.59
1N1204A		5878	400PIV	12 AMP	DO-4		.89	.79	.69
1N5816		-----	150PIV	20 AMP	DO-4		2.95	2.49	1.95
Silicon Controlled Rectifier (SCR) FW BRIDGE RECTIFIERS AND TRIACS	C106B1	5455	200V	3.6A	SCR(2N6239)	TO-202	.49	.45	.39
	C38B	5543	200V	35A	SCR(2N3898)	DO-5	2.19	2.09	1.95
	C38M	5547	600V	35A	SCR(2N3899)	DO-5	3.19	3.09	2.95
	C122B	5463	200V	8A	SCR	TO-220	.89	.79	.69
	C122D	5465	400V	8A	SCR	TO-220	1.19	1.09	.99
	C122M	-----	600V	8A	SCR	TO-220	1.59	1.49	1.39
	MDA 990-1	-----	50V	12A	FW Bridge Rec.	179-01	1.49	1.39	1.29
	MDA 990-3	5322	200V	12A	FW Bridge Rec.	179-01	1.79	1.69	1.59
	MDA 990-6	(MDA2506)	600V	25A	FW Bridge Rec.	179-01	3.19	3.09	2.95
	SC146B	5633	200V	10A	TRIAC(2N6342)	TO-220	.99	.89	.79
	SC146D	5635	400V	10A	TRIAC(2N6343)	TO-220	1.39	1.29	1.19
	SC146M	-----	600V	10A	TRIAC(2N6344)	TO-220	1.95	1.79	1.65

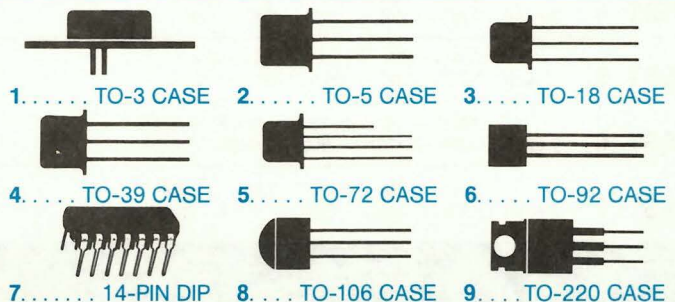
TRANSISTORS

Part No.	Cross-Ref. to ECG	★ Type Case	BVCEO Min.	VCE (Sat.) Max.	hFE Min-Max	PRICE			Part No.	Cross-Ref. to ECG	★ Type Case	BVCEO Min.	VCE (Sat.) Max.	hFE Min-Max	PRICE										
						1-99	100-999	1000+							1-99	100-999	1000+								
4N25-4N35	Photo-Transistors								See Page 43								2N3638A	159	I6	25	.25	20-100	3/1.00	.29	.25
MPSA05	123AP	B6	60	.25	50-150	3/.69	.19	.16	MPS3640	159	P6	12	.2	30-120	6/1.00	.15	.14								
MPSA06	128	B6	80	.25	50-150	3/.69	.19	.16	2N3702	159	E6	40	.25	60-300	4/.75	.16	.14								
TIP29A	152	M9	60	.7	15-150	.39	.35	.29	2N3704	123AP	F6	30	.6	100-300	4/.75	.16	.14								
TIP30A	153	D9	−60	−.7	15-150	.39	.35	.29	2N3705	123AP	F6	30	.8	50-150	4/.65	.13	.11								
TIP31A	152	M9	60	1.2	10-50	.49	.43	.39	2N3706	123AP	F6	40	1	30-600	4/.65	.13	.11								
TIP32A	153	D9	−60	−1.20	10-50	.49	.43	.39	2N3724	235	G2	30	.25	60-150	.59	.55	.49								
TIP41A	331	M9	60	2.0	15-150	.49	.43	.39	2N3725	128	G2	50	.25	60-150	.79	.69	.59								
TIP42A	332	D9	−60	−2.0	15-150	.99	.89	.79	2N3772	181	M1	150W	30A	15-60	.99	.89	.79								
MPSU51	189	^Q TO-202	30	.7	50 Min	.99	.89	.79	2N3823	133	L5	FET	30V	4-20	.79	.69	.59								
TIP101	--	N9	80	2.0	1K/20K	.49	.43	.39	2N3903	123AP	A6	60	.3	50-150	4/.65	.13	.11								
TIP102	--	N9	100	2.0	1K/20K	.79	.69	.59	2N3904	123AP	A6	40	.3	100-300	4/.65	.13	.10								
TIP106	--	O9	−80	−2.0	1K/20K	.49	.43	.39	2N3905	159	E6	40	.25	50-150	4/.65	.13	.11								
TIP120	261	N9	60	3.0	500 Min.	.49	.43	.39	2N3906	159	E6	40	.25	100-300	4/.65	.13	.10								
TIP125	262	O9	−60	−4.0	1000 Min.	.49	.43	.39	2N4013	123AP	G3	30	.25	30-150	.59	.55	.49								
TIS97	107	K6	40	1	250-700	.39	.32	.28	2N4123	123AP	A6	30	.3	50-150	4/.65	.13	.11								
2N918	108	C5	15	.4	20	.59	.52	.45	2N4124**	123AP	A6	25	.3	120-360	4/.65	.13	.11								
2N2219A	123AP	F2	40	.3	100-200	2/.69	.31	.28	2N4125**	159	E6	30	.4	50-100	4/.65	.13	.11								
2N2221A	123AP	F3	40	.3	40-120	3/1.00	.31	.28	2N4249	159	J8	60	.25	100-300	4/.69	.14	.13								
PN2222	123AP	F6	40	.3	100-300	6/1.00	.14	.12	2N4400	123AP	F6	40	.4	50-150	4/.65	.13	.11								
2N2222A	123AP	F3	40	.3	100-300	3/1.00	.29	.25	2N4401	123AP	F6	40	.4	100-300	4/.65	.13	.11								
MPQ2222Quad	--	F7	40	.4	30 Min	1.19	1.09	.99	2N4402	159AP	I6	40	.4	50-150	4/.65	.13	.11								
MPS2369	107	H6	15	.25	20-120	4/.75	.16	.14	2N4403	159AP	I6	40	.4	50-150	4/.65	.13	.11								
2N2484	123AP	K3	60	.35	100-500	3/1.00	.29	.25	2N4409	194	K6	50	.2	60-400	4/.65	.13	.11								
2N2906A	159	I3	60	.4	40-120	2/.65	.29	.25	2N5086	159	J6	50	.3	150-500	4/.75	.16	.14								
PN2907	159	I6	60	.4	100-300	6/1.00	.14	.12	2N5087	159	J6	50	.3	250-800	4/.69	.14	.13								
2N2907A	159	I3	60	.4	100-300	3/1.00	.29	.25	2N5088	123AP	K6	30	.5	300-900	4/.69	.14	.13								
MPQ2907Quad	--	I7	60	.4	50 Min	1.19	1.09	.99	2N5089	123AP	K6	35	.5	400-1200	4/.69	.14	.13								
2N2925	123AP	A6	25	.3	150-300	4/.89	.19	.16	2N5129	128	A6	12	.25	20-250	4/.65	.13	.11								
MJE2955T	183	D9	60	1.1	20-70	.59	.55	.49	PN5134	123AP	H6	10	.25	20-150	4/.65	.13	.11								
2N3053	128	B4	40	1.4	25-150	2/1.00	.45	.39	2N5139	193	E8	20	.5	40-350	4/.65	.13	.11								
MJE3055T	182	M9	60V	50W	20hFE	.69	.65	.59	2N5210	123	K6	50	.7	200-600	4/.69	.14	.13								
2N3055	181	M1	60V	115W	20-70	.59	.55	.49	2N5771	194	P6	4.5	.18	50-120	.59	.55	.49								
2N3398	123AP	A6	25	--	55-800	4/.89	.19	.16	2N5951	312	L6	FET	30V	360-500	.45	.39	.35								
MPQ3467Quad	--	I7	40	.5	20 Min	1.19	1.09	.99	40409	128	M2	90V	3W	--	1.39	1.25	1.09								
2N3567	128	B8	40	.25	40-300	3/.69	.19	.16	40410	129	D2	90V	3W	--	1.39	1.25	1.09								
PN3569	128	B6	40	.25	100-300	4/.89	.19	.16	40673	222	L5	MOS FET			1.69	1.55	1.39								

**CUT AND FORMED LEADS

* TYPE / CASE CODE

A NPN General Purpose Amp and Switch to 100mA
B NPN Medium Power Amp and Switch
C NPN General Purpose High Frequency
D PNP Power Transistor
E PNP General Purpose Amp and Switch to 100mA
F NPN General Purpose Amp and Switch to 500mA
G Switch to 1 Amp
H NPN Saturated Switch to 100mA
I PNP General Purpose amp and Switch to 500mA
J PNP Low Level — High Gain 50-100mA
K NPN Low Noise — Low Level — High Gain to 100mA
L Field Effect Transistors (N Channel)
M NPN Power Transistor
N NPN Power Darlington
O PNP Power Darlington
P PNP Saturated Switch to 100mA
Q PNP Silicon Audio



CARBON FILM RESISTORS

STANDARD 1/4 WATT RESISTANCE VALUES 5%

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS
2.2	11	51	240	1.1K	5.1K	24K	110K	510K	2.4M
2.4	12	56	270	1.2K	5.6K	27K	120K	560K	2.7M
2.7	13	62	300	1.3K	6.2K	30K	130K	620K	3.0M
3.0	15	68	330	1.5K	6.8K	33K	150K	680K	3.3M
3.3	16	75	360	1.6K	7.5K	36K	160K	750K	3.6M
3.6	18	82	390	1.8K	8.2K	39K	180K	820K	3.9M
3.9	20	91	430	2.0K	9.1K	43K	200K	910K	4.3M
4.3	22	100	470	2.2K	10K	47K	220K	1.0M	4.7M
4.7	24	110	510	2.4K	11K	51K	240K	1.1M	5.1M
5.1	27	120	560	2.7K	12K	56K	270K	1.2M	5.6M
5.6	30	130	620	3.0K	13K	62K	300K	1.3M	6.2M
6.2	33	150	680	3.3K	15K	68K	330K	1.5M	6.8M
6.8	36	160	750	3.6K	16K	75K	360K	1.6M	7.5M
7.5	39	180	820	3.9K	18K	82K	390K	1.8M	8.2M
8.2	43	200	910	4.3K	20K	91K	430K	2.0M	9.1M
9.1	47	220	1.0K	4.7K	22K	100K	470K	2.2M	10M
10									

MUST BE ORDERED IN INCREMENTS OF 5 EACH PER VALUE

		QUANTITY	PRICING
5 PIECES PER VALUE	*ALL VALUES MIXED IN ONE PACKAGE UNLESS OTHERWISE SPECIFIED	5 to 495 pieces	\$.06 each
		500 to 995 pieces	\$.05 each
		1000 or more pieces	\$.04 each
	*INDIVIDUAL PACKAGING FOR LESS THAN 100 PIECES — \$.05 PER VALUE		
100 PIECES PER VALUE	COST INCLUDES INDIVIDUAL PACKAGING PER VALUE	100 to 2400 pieces	\$2.50 per 100
		2500 to 4900 pieces	\$2.00 per 100
		5000 or more pieces	\$1.80 per 100
1000 PIECES PER VALUE	COST INCLUDES INDIVIDUAL PACKAGING PER VALUE	1000 to 9000 pieces	\$11.95 per 1000
		10,000 to 24,000 pieces	\$10.95 per 1000
		25,000 or more pieces	\$ 9.95 per 1000

— VALUES MAY BE COMBINED (IN EACH SECTION ONLY) FOR THE BEST QUANTITY PRICE —

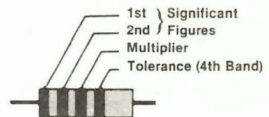
RESISTOR ASSORTMENTS 50-Piece — 1/4 Watt — 5%

Part No.		Price
ASST. 1	5 each 10 OHM — 12 OHM — 15 OHM — 18 OHM — 22 OHM 27 OHM — 33 OHM — 39 OHM — 47 OHM — 56 OHM	\$1.95
ASST. 2	5 each 68 OHM — 82 OHM — 100 OHM — 120 OHM — 150 OHM 180 OHM — 220 OHM — 270 OHM — 330 OHM — 390 OHM	\$1.95
ASST. 3	5 each 470 OHM — 560 OHM — 680 OHM — 820 OHM — 1K 1.2K — 1.5K — 1.8K — 2.2K — 2.7K	\$1.95
ASST. 4	5 each 3.3K — 3.9K — 4.7K — 5.6K — 6.8K 8.2K — 10K — 12K — 15K — 18K	\$1.95
ASST. 5	5 each 22K — 27K — 33K — 39K — 47K 56K — 68K — 82K — 100K — 120K	\$1.95
ASST. 6	5 each 150K — 180K — 220K — 270K — 330K 390K — 470K — 560K — 680K — 820K	\$1.95
ASST. 7	5 each 1M — 1.2M — 1.5M — 1.8M — 2.2M 2.7M — 3.3M — 3.9M — 4.7M — 5.6M	\$1.95

ASST. 8R 350 pcs. Includes Assortments 1-7 shown above **\$9.95**
(Each Assortment is individually packaged)
(Regular Price \$13.65 — SAVE \$3.70)

STANDARD RESISTOR COLOR CODE

COLOR BAND SYSTEM



Tolerance on:
No. 4 band

No Band, $\pm 20\%$
Silver, $\pm 10\%$
Gold, $\pm 5\%$

1st and 2nd Band 3rd Band

0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Grey
9	White

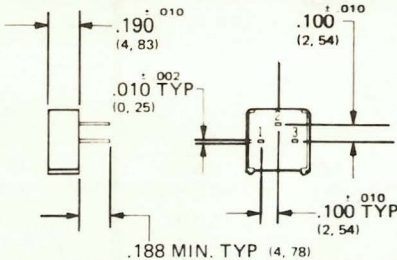
MULTIPLIER	
Color	Multiplier
Black	1
Brown	10
Red	100
Orange	1,000
Yellow	10,000
Green	100,000
Blue	1,000,000
Silver	0.01
Gold	0.1

TRIMMING POTENTIOMETERS

VARIABLE RESISTORS

MODEL 63P — Single Turn Cermet — Linear Taper

- 1/2 Watt @ 70°C — (−55°C to +125°C) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm) TO-5 Grid
- Sealed to guard against contaminants



Equivalent to:

Beckman 72PR, Bourns 3386P, Weston 840P

STANDARD RESISTANCE VALUES

— Please Specify Values When Ordering —

50Ω 100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 500K 1 Meg

PART NO.	RESISTANCES (OHMS)	PRICING		
		1-24	25-99	100+
63P-(value)	50Ω — 1 Meg	\$.99	\$.89	\$.79

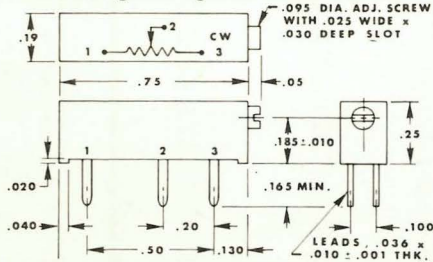
— Values May Be Combined for Best Quantity Pricing —



TOP ADJUSTMENT

MODEL 43P — 15 Turn Cermet — Linear Taper

- 3/4 Watt @ 70°C — (−55°C to +125°C) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm)
- Sealed to guard against contaminants



Equivalent to:

Beckman 89PR, Bourns 3006P, Weston 830P

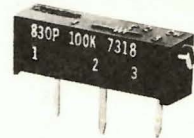
STANDARD RESISTANCE VALUES

— Please Specify Values When Ordering —

50Ω 100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 500K 1 Meg

PART NO.	RESISTANCES (OHMS)	PRICING		
		1-24	25-99	100+
43P-(value)	50Ω — 1 Meg	\$1.05	\$.95	\$.85

— Values May Be Combined for Best Quantity Pricing —



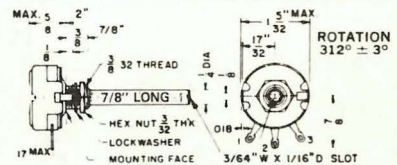
SIDE ADJUSTMENT

2 Watt Linear Taper Potentiometer

- 7/8" Slotted Shaft (CMW) 2 W @ 70°C Ambient — ± 10% Tolerance
- Meets MIL-R-94 (−55°C to +120°C)

			PRICING		
PART NO.	MILITARY NO.	OHMS	1-24	25-99	100+
CMU1021	RV4N-AYSD-102A	1K	\$3.25	\$2.95	\$2.75
CMU5021	RV4N-AYSD-502A	5K	\$3.25	\$2.95	\$2.75
CMU1031	RV4N-AYSD-103A	10K	\$3.25	\$2.95	\$2.75
CMU2531	RV4N-AYSD-253A	25K	\$3.25	\$2.95	\$2.75
CMU5031	RV4N-AYSD-503A	50K	\$3.25	\$2.95	\$2.75
CMU1041	RV4N-AYSD-104A	100K	\$3.25	\$2.95	\$2.75
CMU1052	RV4N-AYSD-105A	1MEG	\$3.25	\$2.95	\$2.75

— Values May Be Combined for Best Quantity Pricing —



ROUND TYPE SHAFT FOR 1/4" PANEL MAXIMUM



TR11 .20 Watt Trimmer

Single Turn

STANDARD RESISTANCE VALUES

— Please Specify Values When Ordering —

100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 1Meg

		PRICING	
Part No.	Resistances (Ohms)	1-99	100+
TR11-(value)	100Ω — 1 Meg	\$.25	\$.19



Bourns Potentiometers

1/4 Watt — Single Turn — Top Adjustment ±20%
Pin Spacing .172 ± .01 (2 places) .344 overall

STANDARD RESISTANCE VALUES

— Please Specify Values When Ordering —

500Ω 1K 2.5K 5K 10K 25K
50K 100K 250K 500K 5 Meg

		PRICING	
Part No.	Resistances (Ohms)	1-99	100+
Bourns 3355	500Ω — 5 Meg	\$.29	\$.25

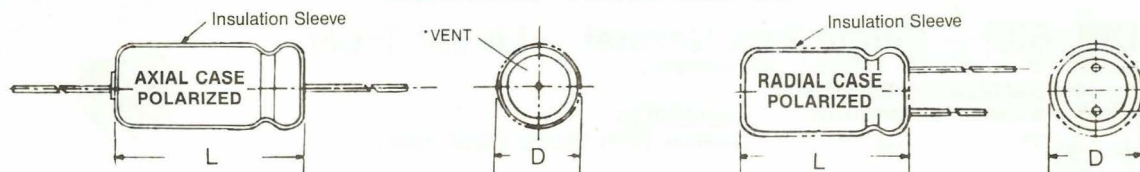
GB174 25 each Assorted Values. \$2.00

4 PINS
HORIZONTAL
MOUNTING

1/4" dia.
(10mm size)
VERTICAL
MOUNTING

CAPACITORS

ELECTROLYTIC — MINIATURE ALUMINUM



AXIAL LEAD ELECTROLYTIC

Capacitance MFD	Working DC Voltage	Surge DC Voltage	Case	APPROXIMATE DIMENSIONS		PART NO.	PRICE		
				L	D		1-99	100-999	1000+
.47*	50	63	Axial	.492"	.205"	A.47/50	.14	.12	.08
1	16	20	Axial	.488"	.205"	A1/16	.14	.12	.08
1*	50	63	Axial	.488"	.205"	A1/50	.16	.14	.10
3.3*	50	63	Axial	.488"	.205"	A3.3/50	.14	.12	.08
4.7*	50	63	Axial	.622"	.323"	A4.7/50	.14	.12	.08
10	25	32	Axial	.492"	.244"	A10/25	.14	.12	.08
10*	50	63	Axial	.622"	.323"	A10/50	.16	.14	.10
22*	50	63	Axial	.630"	.236"	A22/50	.21	.18	.12
47	16	20	Axial	.622"	.323"	A47/16	.16	.14	.10
47	25	32	Axial	.630"	.236"	A47/25	.16	.14	.10
47*	50	63	Axial	.630"	.315"	A47/50	.21	.18	.12
100	16	20	Axial	.630"	.315"	A100/16	.19	.16	.14
100	25	32	Axial	.630"	.315"	A100/25	.21	.18	.12
100*	50	63	Axial	.787"	.315"	A100/50	.27	.23	.15
220	25	32	Axial	.987"	.315"	A220/25	.27	.23	.15
220*	50	63	Axial	.984"	.394"	A220/50	.32	.27	.18
470	16	20	Axial	.787"	.394"	A470/16	.32	.27	.18
470	25	32	Axial	.984"	.394"	A470/25	.39	.33	.22
470*	50	63	Axial	.984"	.512"	A470/50	.49	.43	.29
1000	16	20	Axial	1.240"	.394"	A1000/16	.43	.36	.25
1000*	25	32	Axial	.984"	.514"	A1000/25	.49	.43	.29
2200*	16	20	Axial	1.594"	.512"	A2200/16	.69	.55	.39

AXIAL ELECTROLYTIC CAPACITOR ASSORTMENT — 60 PIECES

(5 each of 12 values as marked [*] above) — Individually packaged

REGULAR PRICE: \$17.10 — **SAVE \$4.15 (24% SAVINGS)**. AXIAL 60 — \$12.95

RADIAL LEAD ELECTROLYTIC

.47**	50	63	Radial	.433"	.315"	R.47/50	.11	.09	.06
1	25	32	Radial	.413"	.205"	R1/25	.11	.09	.06
1**	50	63	Radial	.433"	.205"	R1/50	.13	.11	.08
4.7	25	32	Radial	.413"	.205"	R4.7/25	.11	.09	.06
4.7**	50	63	Radial	.433"	.283"	R4.7/50	.13	.11	.08
10**	50	63	Radial	.453"	.236"	R10/50	.13	.11	.08
47	25	32	Radial	.500"	.375"	R47/25	.12	.10	.07
47**	50	63	Radial	.807"	.520"	R47/50	.14	.12	.09
100	16	20	Radial	.512"	.402"	R100/16	.14	.12	.09
100	25	32	Radial	.787"	.402"	R100/25	.16	.14	.11
100**	50	63	Radial	1.240"	.520"	R100/50	.23	.18	.13
220**	16	20	Radial	.492"	.315"	R220/16	.16	.14	.11
220	25	32	Radial	.750"	.500"	R220/25	.23	.18	.13
470	16	20	Radial	.750"	.500"	R470/16	.23	.18	.13
470**	25	32	Radial	.984"	.630"	R470/25	.32	.27	.19
1000**	16	20	Radial	1.240"	.520"	R1000/16	.37	.31	.22

RADIAL ELECTROLYTIC CAPACITOR ASSORTMENT — 45 PIECES

(5 each of 9 values as marked [**] above) — Individually packaged

REGULAR PRICE: \$8.60 — **SAVE \$1.65 (19% SAVINGS)**. RADIAL 45 — \$6.95

CAPACITORS

DIPPED TANTALUM CAPACITORS

±20% Dipped (Solid) Polarized

Part No.	Value	Volts	PRICE		
			1-99	100-999	1000+
*TM .1/35	.1μf	35V	.19	.15	.12
*TM .15/35	.15μf	35V	.19	.15	.12
*TM .22/35	.22μf	35V	.19	.15	.12
*TM .33/35	.33μf	35V	.19	.15	.12
*TM .47/35	.47μf	35V	.19	.15	.12
*TM .68/35	.68μf	35V	.19	.15	.12
*TM 1/35	1μf	35V	.23	.17	.14
*TM 1.5/35	1.5μf	35V	.26	.20	.17
*TM 2.2/35	2.2μf	35V	.29	.23	.19
TM 3.3/25	3.3μf	25V	.32	.24	.19
*TM 3.3/35	3.3μf	35V	.35	.27	.23
TM 4.7/25	4.7μf	25V	.35	.27	.23
*TM 4.7/35	4.7μf	35V	.43	.36	.29
*TM 6.8/35	6.8μf	35V	.49	.43	.35
TM 10/25	10μf	25V	.59	.49	.39
*TM 10/35	10μf	35V	.65	.49	.42
TM 15/25	15μf	25V	.69	.59	.49
TM 22/6	22μf	6V	.39	.35	.29
TM 33/25	33μf	25V	1.95	1.69	1.39
TM 47/25	47μf	25V	2.49	2.29	1.95
TM 100/6	100μf	6V	1.49	1.19	.99

TANTALUM CAPACITOR ASSORTMENT — 65 PIECES

(5 ea. 13 values as marked [*] above) individually packaged

Reg. Price \$19.20-SAVE \$4.25 #TANT-65 \$14.95

CAPACITOR CODE

1 0 4 = 100000 . pf or .1 μf

(move decimal 6 places to left to convert to microfarads)

Multiplier (add zeros to get value in picofarads)

2nd Significant Figure

1st Significant Figure

DISC CAPACITORS

+80 - 20% CERAMIC

Part No.	Value	Volts	PRICE		
			1-99	100-999	1000+
DC 10/50	10pf	50V	.07	.05	.04
DC 22/50	22pf	50V	.07	.05	.04
DC 39/50	39pf	50V	.07	.05	.04
DC 47/50	47pf	50V	.07	.05	.04
DC 68/50	68pf	50V	.07	.05	.04
DC 100/50	100pf	50V	.07	.05	.04
DC 220/50	220pf	50V	.07	.05	.04
DC 330/50	330pf	50V	.07	.05	.04
DC 470/50	470pf	50V	.07	.05	.04
DC .001/50	.001μf	50V	.07	.05	.04
DC .0047/50	.0047μf	50V	.07	.05	.04
DC .01/50	.01μf	50V	.07	.05	.04
DC .022/50	.022μf	50V	.08	.06	.05
DC .033/50	.033μf	50V	.08	.06	.05
DC .047/50	.047μf	50V	.08	.07	.06
DC .1/50	.1μf	50V	.13	.11	.10

DISC CAPACITOR ASSORTMENT — 160 PIECES

(10 ea. 16 values as listed above) individually packaged

Reg. Price \$12.10-SAVE \$4.15 #DISC-160 \$7.95

MYLAR CAPACITORS

±10% Polyester Film

Part No.	Value	Volts	PRICE		
			1-99	100-999	1000+
MY.001/100	.001μf	100V	.08	.06	.05
MY.0015/100	.0015μf	100V	.08	.06	.05
MY.0022/100	.0022μf	100V	.08	.06	.05
MY.0047/100	.0047μf	100V	.08	.06	.05
MY.01/100	.01μf	100V	.09	.07	.06
MY.022/100	.022μf	100V	.09	.07	.06
MY.033/100	.033μf	100V	.11	.08	.07
MY.047/100	.047μf	100V	.11	.08	.07
MY.1/100	.1μf	100V	.12	.09	.08
MY.22/100	.22μf	100V	.25	.19	.15
MY.33/100	.33μf	100V	.29	.23	.18
MY.47/100	.47μf	100V	.39	.31	.23

MYLAR CAPACITOR ASSORTMENT — 120 PIECES

(10 ea. 12 values as listed above) individually packaged

Reg. Price \$17.70-SAVE \$4.75 #MYLAR-120 \$12.95

SILVER DIPPED MICA CAPACITORS

DM15 Series ±5% Tolerance (CMOS Mil. Style)

Part No.	Value	Volts	PRICE		
			1-99	100-999	1000+
*DM15-100J	10pf	500V	.32	.25	.18
*DM15-220J	22pf	500V	.32	.25	.18
DM15-270J	27pf	500V	.32	.25	.18
*DM15-330J	33pf	500V	.32	.25	.18
*DM15-470J	47pf	500V	.32	.25	.18
DM15-560J	56pf	500V	.32	.25	.18
*DM15-680J	68pf	500V	.32	.25	.18
DM15-820J	82pf	500V	.32	.25	.18
*DM15-101J	100pf	500V	.32	.25	.18
DM15-121J	120pf	500V	.41	.32	.23
*DM15-221J	220pf	500V	.45	.35	.24
DM15-271J	270pf	500V	.49	.38	.27
DM15-331J	330pf	500V	.53	.41	.29
*DM15-471J	470pf	500V	.59	.49	.39
DM15-561J	560pf	300V	.63	.55	.43
*DM15-681J	680pf	300V	.65	.59	.52
DM15-821J	820pf	300V	.79	.69	.59
*DM15-102J	1000pf	100V	.89	.79	.69

MICA CAPACITOR ASSORTMENT — 50 PIECES

(5 ea. 10 values as marked [*] above) individually packaged

Reg. Price \$22.50-SAVE \$7.55 #MICA-50 \$14.95



TRIMMER CAPACITORS

CERAMIC



Part No.	Value	PRICE		
		1-99	100-999	1000+
TC 2-8	2-8pf	.79	.65	.49
TC 3-12	3-12pf	.79	.65	.49
TC 3-23	3-23pf	.79	.65	.49
TC 4-34	4-34pf	.79	.65	.49
TC 6-70	6-70pf	.79	.65	.49

TRIMMER CAPACITOR ASSORTMENT — 10 PIECES

(2 ea. 5 values as listed above) individually packaged

Reg. Price \$7.90-SAVE \$1.95 #TRIMMER-10 \$5.95

Unimax Switch



THUMBWHEEL SWITCHES

Part No.	Description	Price 1-9	Price 10 +
SF-12	Single Pole 10 Position Decimal	3.29	2.95
SR-12		3.29	2.95
SF-21	10 Position BCD only	3.29	2.95
SR-21		3.29	2.95

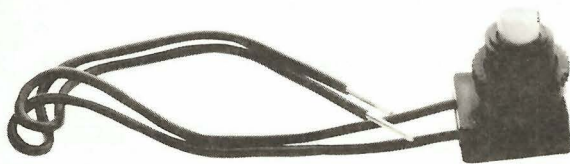
Part No.	Description	Dial	Price 1-9	Price 10 +
SF-52	Decimal 16 Position	0-9,A-F	4.95	4.45
SF-53*	16 Position Binary Complement	0-9,A-F	4.95	4.45
SF-54	16 Position BCD	0-9,A-F	4.95	4.45

Switch Specifications

Dimensions for Switches & Accessories

Dimensions for Switches,EP,DP,BB,HB		Panel Cut-Out Length for Switches & End Plates		
		NO. OF SWITCHES (+ ONE PAIR END PLATES)	LENGTH INCHES	LENGTH MM
Panel Thickness	$0.125 \pm 0.010"$	1	0.640	16.25
Required	$3.17 \pm 0.254\text{mm}$	2	0.955	24.25
		3	1.270	32.25
Switch, Divider, or	$0.315 \pm 0.002"$	4	1.585	40.25
Full Body Spacer	$8.00 \pm 0.127\text{mm}$	5	1.890	48.25
		6	2.205	56.25
		7	2.520	64.25
End Plate or	$0.158 \pm 0.002"$	8	2.835	72.25
1/2 Body Spacer	$4.01 \pm 0.127\text{mm}$	9	3.150	80.25
		10	3.465	88.25

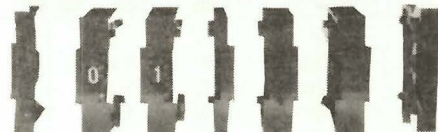
PLASTIC PUSH BUTTON SWITCHES



- | Part No. | Description | Button Color | 1-24 | 25-99 | 100 + |
|----------|------------------|--------------|------|-------|-------|
| J188-1 | Push On/Push Off | White | \$59 | \$49 | \$39 |
| J188-2 | Normally Open | Red | .59 | .49 | .39 |
| J188-3 | Normally Closed | Black | .59 | .49 | .39 |

Front Mount Switch Accessories

SERIES SF Front Mount Assembly



Part No.	Description	Price 1-9	Price 10 +
SF-EP	End Plates (pair)	1.19	.99
SF-DP	Divider Plate (each)	.60	.55
SF-BB	Blank Body (each)	.60	.55
SF-HB	Half Body (each)	.60	.55

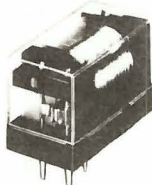
Rear Mount Switch Accessories

SERIES SR Rear Mount Assembly



Part No.	Description	Price 1-9	Price 10 +
SR-EP	End Plates (pair)	.99	.79
SR-DP	Divider Plate (each)	.60	.55
SR-BB	Blank Body (each)	.60	.55
SR-HB	Half Body (each)	.60	.55

AROMAT RELAYS



- | Part No. | Voltage | Res. (Ohms) | Nom. Power | Contacts Amps | Contacts Arrangement | Price |
|----------|---------|-------------|------------|---------------|----------------------|---------------|
| HB2-5 | 5VDC | 43.4 | 576 | 2 | DPDT | \$3.95 |
| HB2-12 | 12VDC | 250 | 576 | 2 | DPDT | \$3.95 |
| HA1-5 | 5VDC | 69 | 360 | 3 | SPDT | \$3.29 |
| HA1-12 | 12VDC | 400 | 360 | 3 | SPDT | \$3.29 |
| HA1-115 | 115VAC | — | 0.9VA | 3 | SPDT | \$3.95 |

STANDEX RELAYS

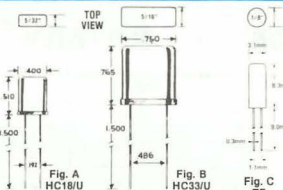
Part No.	Voltage	Res. (Ohms)	Nom. Power	Contacts Amps	Contacts Arrangement	Price
RRJ-10317	12VDC	750	192	16mA	SPST	\$.35

SWITCHES

• TOGGLE • ROCKER • PUSHBUTTON • SLIDE • ROTARY •

TYPE/RATING	MODEL NO.	STYLE	MOUNTING HOLE DIM.	CIRCUITRY ON-ON=2 POS. ON-OFF-ON=3 POS.	PRICE		
					1-9	10-99	100+
SUBMINIATURE TOGGLE 3 AMP @ 125VAC 	JMT121	SPDT	1/4"	on-off-on	1.29	1.19	1.15
	JMT123	SPDT	1/4"	on-on	1.25	1.15	1.09
	JMT221	DPDT	1/4"	on-off-on	1.75	1.59	1.49
	JMT223	DPDT	1/4"	on-on	1.49	1.39	1.29
PRINTED CIRCUIT BOARD TOGGLE 3 AMP @ 125VAC 	MPC121	SPDT	1/4"	on-off-on	1.49	1.39	1.29
	MPC123	SPDT	1/4"	on-on	1.39	1.29	1.19
	MPC221	DPDT	1/4"	on-off-on	1.75	1.59	1.49
	MPC223	DPDT	1/4"	on-on	1.65	1.49	1.35
FLAT LEVER TOGGLE 3 AMP @ 125VAC 	LFH121	SPDT	1/4"	on-off-on	2.39	2.19	1.89
	LFH123	SPDT	1/4"	on-on	1.95	1.79	1.59
	LFH221	DPDT	1/4"	on-off-on	2.79	2.49	2.19
	LFH223	DPDT	1/4"	on-on	2.49	2.29	2.09
	7301P3	3PDT	1/4"	on-off-on	8.95	8.49	7.95
ROCKER SWITCH 10 AMP @ 250VAC 	RS026	SPDT	1.10"L x .50"W (1.05" depth)	on-on	1.39	1.29	1.19
PUSHBUTTON 5 AMP @ 125VAC 	PB123	Maintained SPDT	1/4"	on-on	3.69	3.29	2.95
	PB126	Momentary SPDT	1/4"	on-on	3.69	3.29	2.95
MINIATURE SLIDE 	SL716	DPDT	5/16" x 5/8"	on-on	.39	.35	.29
SUBMINIATURE SLIDE 	MSL34	SPDT	3/8" x 7/32"	on-on	.49	.45	.39
DIPSWITCH 	206-4	SPST	8-pin DIP	4 switch	1.19	1.09	.99
	206-7	SPST	14-pin DIP	7 switch	1.25	1.15	1.05
	206-8	SPST	16-pin DIP	8 switch	1.29	1.19	1.09
	206-12	SPST	24-pin DIP	12 switch	1.69	1.49	1.29
ROTARY 0.3 AMP @ 125VAC NON-SHORTING BREAK BEFORE MAKE 	MRS260	Double pole 2-6 position	3/8"	2 pole 6 pos. single section	1.19	1.05	.95
	MRS304	Triple pole 3-4 position	3/8"	3 pole 4 pos. single section	1.25	1.09	.99
	MRS112	Single pole 1-12 position	3/8"	1 pole 12 pos. single section	1.15	.99	.89
MINIATURE PUSHBUTTON 1 AMP @ 125VAC 	MS102	Momentary SPST	1/4"	normally open	.39	.35	.29
	MS103	Momentary SPST	1/4"	normally closed	.45	.39	.35
COLORLED CAPS for MS102-103 SWITCHES (CEMENT ON) 	MSR-CAP	Red	1/4"	-----	.19	.17	.15
	MSB-CAP	Black	1/4"	-----	.19	.17	.15
	MSG-CAP	Green	1/4"	-----	.19	.17	.15
	MSY-CAP	Yellow	1/4"	-----	.19	.17	.15
	MSE-CAP	Blue	1/4"	-----	.19	.17	.15

CRYSTALS



"GENERAL PURPOSE" CALIBRATION AT AMBIENT TEMPERATURE (25°) IS WITHIN ±.005% OF SPECIFIED FREQUENCY. *In the Case/Style column below, we have listed the case and style (series or parallel resonance) of the crystal. If it is parallel resonance, we have listed the load capacitance. For example:

CY1A BP13 = HC/33U Parallel 13pF
(Case) (Resonance) (Load Capacitance)

Style: S = Series P = Parallel

Part No.	Frequency	Use With:	*Case/ Style	Price		Part No.	Frequency	Use With:	*Case/ Style	Price	
				1-9	10+					1-9	10+
CY1A	1.000MHz	F8,Z8,Z80,1802, MC6800,MC6860	BP13	3.95	3.49	CY6.14	6.144MHz	CP1600,P8085,8748			
CY1.84	1.8432MHz	MOT MC14411	BP13	2.49	1.95	CY6.55	6.5536MHz	Intersil 7207,7045,7034	AP20	1.19	.89
CY2A	2.000MHz	F8,CDP1802,6500/6800 Series	BP20	2.49	1.95	CY8A	8.000MHz	CP1600,IM6100C,MC68000L8 TMS9980,8X300,MC6875	AS	1.19	.89
CY2.01	2.010MHz	GI AY-3-8500-1 (14" Leads)	BS	2.49	1.95	CY10A	10.000MHz	TTL Micro Logic, 8086,8284	AS	1.19	.89
CY2.45	2.4576MHz	4702,IM6100C,F8	BS	2.49	1.95	CY12	12.000MHz	8086, 8202, 8224, 8284, 8350	AS	1.19	.89
CY2.50	2.500MHz	Zilog Z80,IM6100,2650	BS	2.49	1.95	CY14.31	14.31818MHz	4X Color Burst,8080,8224	AS	1.19	.89
CY3.27	3.2768MHz	Intersil 7205,IM6100C	AP15	1.19	.89	CY16A	16.000MHz	8080,8008,8224,8284	AS	1.19	.89
CY3.57	3.579545MHz	MM5369,IM6102,6801,6803,7206 TV Color Burst Crystal	BP18	1.19	.89	CY18A	18.000MHz	Intel 8080A,8008,8224	AS	1.19	.89
CY3.68	3.6864MHz	MOT MC14411	AS	1.19	.89	CY18.43	18.432MHz	8080A,8008,8224,AM9080	AS	1.19	.89
CY4A	4.000MHz	Z80A,4040,4201,Z8001/8002, 4004,Intersil 6100,8035,8048	AP20	1.19	.89	CY19.66	19.6608MHz	8080A,8008,8224	AS	1.49	1.19
CY4.19	4.194304MHz	ICM 7038A,7213,7049	AP12	1.19	.89	CY20A	20.000MHz	Intel 8080/8008	AS	1.49	1.19
CY4.91	4.9152MHz	Z80,Z80A,COM5026,5046	AS	1.19	.89	CY22.11	22.1184MHz	AM9080,UCOM80, 8080A,TMS8080	AS	1.49	1.19
CY5A	5.000MHz	MCPI600,1802,1803	AP20	1.19	.89	CY32A	32.000MHz	8080,8008,8224,AM9080	AS	1.49	1.19
CY5.068	5.0688MHz	COM5016/BR1941,5016T	AS	1.19	.89	NTF32.38	32.768KHz	Watches,MM58167AN	CP10.5	1.19	.89
CY5.24	5.24288MHz	Intersil 7207	AP20	1.19	.89	CY36A	36.000MHz	8080,8008,8224,8080A	AS	1.49	1.19
CY6A	6.000MHz	CP1600,8035,8041,8048, 8049,8747,MCS48,Z80B	AS	1.19	.89	CY48A	48.000MHz	TMS9400,9404,SNLS362	AS	1.49	1.19
						SRX1504	49.435MHz	LM1872N	AP24	1.49	1.19
						SRX1505	49.890MHz	LM1871N	AS	1.49	1.19

REAL TIME CLOCK MODULE

A Real Time Clock incorporating an on board quartz crystal in a single 16-pin DIP package, eliminating the need for external crystal, resistors and capacitors.

- Built-in 32.768KHz quartz crystal • Low power standby operation • Addressable counter start, stop, and reset function • 12- or 24-hour format • Automatic leap year selection • Microprocessor compatible 4-bit data bus • Standard 16-pin DIP package • Pin to pin compatible with MS58321RS

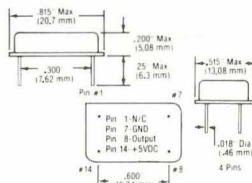
Part No. RTCM 32.768. \$7.95 \$7.49



Price
1-9 10+

CRYSTAL CLOCK OSCILLATORS — TTL & CMOS

A single component oscillator utilizing a combination of thick film hybrid and quartz crystal technology. Suitable for use in computer and digital based equipment. Frequency stability ±100ppm. Input voltage: +5VDC, ±0.5VDC.



TTL Crystal Clock Oscillators

Part Number	Frequency	Current	Price	
			1-9	10+
OSC 1.000	1.0000 MHz	20mA	2.95	2.49
OSC 1.843	1.8432 MHz	20mA	2.95	2.49
OSC 2.000	2.0000 MHz	20mA	2.95	2.49
OSC 4.000	4.0000 MHz	20mA	2.95	2.49
OSC 8.000	8.0000 MHz	20mA	2.95	2.49
OSC 10.000	10.0000 MHz	20mA	2.95	2.49
OSC 16.000	16.0000 MHz	20mA	2.95	2.49
OSC 18.432	18.4320 MHz	20mA	2.95	2.49
OSC 19.660	19.6608 MHz	20mA	2.95	2.49
OSC 20.000	20.0000 MHz	20mA	2.95	2.49
OSC 32.000	32.0000 MHz	20mA	2.95	2.49

CMOS Crystal Clock Oscillators

Part Number	Frequency	Current	1-9	10+
CMOS 1.000	1.000 MHz	10mA	5.95	5.49
CMOS 2.000	2.000 MHz	10mA	5.95	5.49
CMOS 4.000	4.000 MHz	10mA	5.95	5.49
CMOS 8.000	8.000 MHz	10mA	5.95	5.49
CMOS 10.000	10.000 MHz	10mA	5.95	5.49
CMOS 12.000	12.000 MHz	10mA	5.95	5.49
CMOS 32.768	32.768 KHz	100µA	5.95	5.49

TRANSFORMERS, PLUGS, FUSES AND FUSEHOLDERS

12VAC @ 830mA



AC830..... \$2.49

9VAC @ 500mA



AC900..... \$2.49

8VDC @ 400mA



DC800..... \$1.49

9VDC @ 1 Amp



DC901..... \$4.25

AC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of AC application. UL Listed.

Part No.	Input	Output	1-9	10+
AC900	120V/60Hz	9VAC 500mA	\$2.49	\$1.95
AC9004	120V/60Hz	9.2VAC 3 amp	\$6.95	\$6.19
AC250	120V/60Hz	12VAC 250mA	\$2.95	\$2.49
AC500	120V/60Hz	12VAC 500mA	\$4.95	\$4.49
AC830	117V/60Hz	12VAC peak @ 830mA	\$2.49	\$1.95
AC1000	120V/60Hz	12VAC 1 amp	\$5.95	\$5.49
AC2400	120V/60Hz	24VAC 1.2 amp	\$3.95	\$3.49

DC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of DC application. UL Listed.

Part No.	Input	Output	1-9	10+
DC512*	120V/60Hz	+ 5VDC 900mA - 5VDC 100mA +12VDC 300mA	\$4.95	\$4.49
(*Has Multiple Voltage Output)				
DC600	120V/60Hz	6VDC 750mA	\$2.49	\$2.25
DC800	120V/60Hz	8VDC 400mA	\$1.49	\$1.29
DC9200	120V/60Hz	9VDC 200mA	\$2.95	\$2.49
DC900	120V/60Hz	9VDC 500mA	\$3.95	\$3.49
DC901	120V/60Hz	9VDC 1 amp	\$4.25	\$3.95
DC1200	120V/60Hz	10.5VDC 300mA	\$3.95	\$3.75

PLUGS



Mono Plugs



DC Power Plugs

Part No.	Description	1-9	10+
PP095	2.5mm Mono Plug-2 Cond. Solder Terminals.....	.29	.25
PP102	3.5mm Mono Plug-2 Cond. Solder Terminals.....	.35	.29
PP049	2.1mm DC Power Plug, Solder Terminals.....	.39	.35
PP109	2.5mm DC Power Plug, Solder Terminals.....	.45	.39

5-Way DC Voltage Adapter

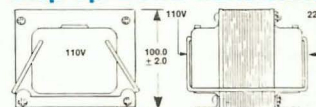


with Universal Plug and 9 Volt Battery Snap

- Selective voltages: 6, 9, 12VDC
- Polarity selection: (+) or (-)
- 6" line from adapter to plugs
- 6" line from adapter to battery snap • 120V/60Hz 300mA • UL approved

DC6912.. \$7.95

Step Up/Down Transformer



- Allows safe and easy step-down from 220V to 110VAC and step-up from 110V to 220VAC • Portable (comes with carrying handles) • Rugged design • Rated @ 2.3A AC (250W)

STEP-X... (7 lbs.)... \$24.95

Clock Module Transformers

- Use for Clock Module MA1023
- PRI: 115VAC, 60Hz • Sec: 9VAC @ 25mA, 8VCT @ 250mA • Size: 2"L x 1 3/16"H x 1 1/16"D



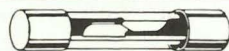
Part No. 102P20..... \$3.49

- Use for Clock Module MA1026 • PRI: 115VAC, 60Hz • Sec: 12VAC @ 25mA, 6.5VCT @ 250mA • Size: 2"L x 1 3/16"H x 1 1/16"D. See Clock Modules on Page 42.

Part No. 102P22..... \$3.49

- Use for Clock Module MA1002 • PRI: 115VAC, 60Hz • Sec: 16VAC @ 23mA, 10.4VCT @ 250mA • Size: 2 5/16"L x 1 1/16"H x 1 1/4"D.

Part No. 102P24..... \$3.49



AGC FUSES

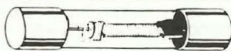
- BUSS fast acting fuses for protection of instruments • Size: 1/4" x 1 1/4"
- Glass tube • 3AG 250V or less

Please Specify Amperes:
1/4, 1/2, 3/4, 1, 2, 4

- Box includes 5 of same type fuse.

AGC-..... \$3.25/box
(SPECIFY AMPS)

FUSES



MDL FUSES

- FUSETRON dual element glass tube • Slow blowing fuse • Size: 1/4" x 1 1/4" • 250V or less

Please Specify Amperes:
1/16, 1/8, 1/4, 1/2, 3/4, 1, 2

- Box includes 5 of same type fuse.

MDL-..... \$4.95/box
(SPECIFY AMPS)

Power Transformers



- Input: 117V/60Hz • Output: 12.6VCT @ 2 amps • 1500RMS test voltage
- Mounting centers: 2 3/4" • Size: 3 1/4"L x 2"H x 2 1/8"D • Weight: 1 lb.

P8130 (F25X)..... \$5.95

- Input: 117V/60Hz • Output: 12.6VCT @ 4 amps • 1500RMS test voltage
- Mounting centers: 3 1/4" • Size: 3 1/16"L x 2 5/16"H x 2 3/4"D • Weight: 2 1/4 lbs.

PX4..... \$7.95

- Input: 115V Primary, single secondary 50-60Hz • Output: 21VCT @ 2 amps
- 1500RMS test voltage • Mounting centers: 3 3/16" • Size: 4"L x 2 5/16"H x 2 1/4"D • Weight: 2 1/2 lbs.

F255X..... \$7.95

In-Line Fuseholder



- Handy fuseholder for many applications • Holds popular 1 1/4" fuse size • Approx. length of unit: 40"
- Terminal on one end for ease of hook-up

IFH3..... \$4.99 each

FUSEHOLDER



- Normal current carrying capacity: 30 amps • Recognized under the component program of Underwriters Laboratories, Inc. for 15 amps, 250V or less.

Part No. 1-99 100+
HKP..... .65 .49



(415) 592-8097
TELEX 176043

TERMS Domestic:

Prepaid, C.O.D., credit card or approved open account.
Net 30 days, F.O.B. Belmont. See detailed instructions below.

Foreign:

Prepaid or credit card only. U.S. Funds - money order or cashier's check only. See detailed instructions below.



\$20.00 MINIMUM ORDER

- ADDRESS CHANGE.** Moved? Send your previous address and customer number and we will update our files so you may receive all mailings.
- CATALOG.** Future mailings and special sale flyers will be limited to active buying customers only. FREE catalogs will otherwise be available upon written request by sending \$1.00 to cover postage and handling.
- C.O.D.** Acceptable by telephone or mail. Payment from customer must be by cash, money order or company check. Orders over \$500.00 must be paid by cashier's check, cash, or money order. We cannot accept personal checks as payment on C.O.D. parcels.
- CONFIRMING ORDERS.** **CONFIRMING ORDERS ARE NOT NECESSARY.** If company policy necessitates a confirming order, please mark "confirming" boldly on the order. If problems or duplicate shipments occur due to an order which is not properly marked, customers will be held responsible for any charges incurred, **PLUS A 15% RESTOCK CHARGE ON RETURNED PARTS.**
- CREDIT CARDS.** MasterCard and VISA charges are accepted by mail or telephone. Complete order form with card number, name, signature and expiration date.
- CUSTOMER NUMBER.** A computerized customer number is issued to all persons receiving orders from Jameco. This number will be shown on your catalog mailing label or on a recent invoice. Please include this number on all mail-in orders.
- DAMAGE.** Contact our customer service department immediately upon receipt of any suspected damaged material for instructions. All claims must be made within ten (10) days after receipt. Customers who do not notify us of problems with an order within this time period will be held responsible for the entire order, as we will consider the order complete.
- DATA SHEETS.** Data sheets are available upon request on most items. Information available is descriptive data and basic electrical requirements only. Please include \$.30 for each data sheet requested. **MORE INFORMATION MAY BE REQUESTED AT AN ADDITIONAL COST.**
- DELIVERY.** Orders are normally shipped within 48 hours after receipt of customer's order. If a part is on backorder, customer will be advised immediately. **Same day shipment requests will be made with the addition of a \$10.00 service charge.**
- FOREIGN ORDERS.** All foreign orders must be prepaid with credit card, cashier's check or money order drawn on a **U.S. BANK IN U.S. FUNDS ONLY.** **LETTERS OF CREDIT** are not an acceptable form of payment. Further information available on request.
- HOURS.** Monday thru Friday (excluding holidays) 7:00 A.M. - 5:00 P.M. PST (Will Call Service 8:00 A.M. - 5:00 P.M.)
- MINIMUM ORDER.** **\$20.00 is the minimum order. Orders under \$20.00 will be returned unprocessed.**
- OPEN ACCOUNT.** We must have an approved credit application on file and/or a qualifying Dun & Bradstreet rating prior to shipment of open account orders. Credit application approval takes 4-6 weeks. All orders are Net 30 days, F.O.B. Belmont.
- ORDER FORMS.** New order forms are included with each order for your convenience. Additional forms are available on request.
- PRICES.** Prices and discounts are subject to change without prior notice.
- RESTOCK CHARGE.** If parts are to be returned to Jameco due to customer error, customer will be held responsible for all extra fees, plus a 15% restock charge on all returned parts.
- RETURNED CHECKS.** All checks returned for any reason will be subject to a \$10.00 fee.
- RETURNED MATERIAL.** All returned material must be accompanied by the JAMECO CUSTOMER SERVICE FORM that is included with the original shipment. No return authorization number is needed.
DEFECTIVE MATERIAL: Returns must be made within sixty (60) days after receipt of parcel.
INCORRECT MATERIAL: Claims must be made within ten (10) days after receipt of parcel.
- SALES TAX.** Sales tax must be charged to all orders delivered in California. Please include applicable tax for your area (i.e., 6% or 6½%). Persons having a current California Resale Card on file with Jameco will be exempt from sales tax.
- SHIPPING.** **DOMESTIC:** Our normal shipping method is via First Class Mail or UPS, depending on the size and weight of parcel. If you have a preference, please specify. Add 5% of total order (minimum postage \$1.00) to cover cost of shipping and handling. Please include an additional \$1.50 for insurance.
FOREIGN: Our normal shipping method is via air mail or parcel post, depending on the size and weight of parcel. If you have a preference, please specify. Add 20% of total order (minimum postage \$2.00) to cover cost of shipping and handling. Please include an additional \$2.00 for insurance. We will insure, when requested, to all countries where insurance is available.
Priority Service Shipments (i.e. air freight, overnight delivery, etc.) are available, upon request, to most areas. Please contact us for further information.
POSTAGE FEES ARE ESTIMATED - EXCESS FUNDS WILL BE REFUNDED - UNDERPAYMENTS WILL RESULT IN A BALANCE DUE WE ARE NOT RESPONSIBLE FOR UNINSURED SHIPMENTS.
- SHORTAGE.** Please advise on JAMECO CUSTOMER SERVICE FORM received with order and mail or notify our customer service department by telephone. Customers who do not notify us of problems with an order within ten (10) days will be held responsible for the entire order, as we will consider the order complete.
- SUGGESTIONS.** Please write to us with any product suggestions or comments you may have in regards to our current product lines. Mail to the attention of our "Product Development Department."
- TELEX.** Telex Number 176043. Please include your telex number, company name and country for prompt response.
- WILL CALL SERVICE.** Available Monday thru Friday (excluding holidays) 8:00 A.M. to 5:00 P.M. Orders must be placed one hour prior to pick up so we may process the necessary paperwork (\$20.00 minimum order).

*Please attach check to back of Order Form, upper left hand corner

Jameco
ELECTRONICS
Mail Order Electronics - Worldwide
1355 Shoreway Road
Belmont, CA 94002
Telex: 176043

1986 CATALOG ORDER FORM



For Faster Ordering,
Call: 415-592-8097
Monday thru Friday
7:00AM—5:00PM P.S.T.

PRICES TAKEN FROM: ☐ JAMECO CATALOG ☐ MAGAZINE

☐ FLYER NO.

Item No.	QTY.	PART NUMBER	DATA SHEETS	PRICE EACH	AMOUNT EXTENDED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

\$20.00 MINIMUM ORDER

DATA SHEETS Includes descriptive data and basic electrical requirements only.

TOTAL DATA SHEETS

@ .30 each

DOMESTIC ORDERS: Postage & Handling: 5% of total order (\$1.00 min.) Excess will be refunded
Insurance: \$1.50 (not responsible for uninsured parcels)
Tax: California residents only —
*Please include applicable sales tax for your area (i.e., 6% or 6½%)

Sub-Total FRONT

Sub-Total Back

FOREIGN ORDERS: Postage & Handling: 20% of total order (\$2.00 min.) Excess will be refunded
Insurance: \$2.00 (only where postal regulations allow).
NOT RESPONSIBLE FOR UNINSURED PARCELS.
Payment: Cashier's Check or Money Order only (U.S. funds only)

TAX*
(CALIF. ONLY)

Postage

Please Ship My Order: ☐ Prepaid (Check enclosed) ☐ COD
☐ Net 30 Days (Account must be previously established)
☐ MasterCard ☐ VISA

Insurance

Credit Memo
(if applicable)

PLEASE FILL OUT ORDER FORM COMPLETELY

CUSTOMER NO. (See mailing label)

TOTAL

NAME

☐ VISA ☐ MASTERCARD

SHIP TO ADDRESS:

AUTHORIZED SIGNATURE:

CITY

STATE

ZIP

Account Number

DAYTIME PHONE NO. ()

EXT.

NAME (Please Print)

Expiration Date

PURCHASE ORDER NUMBER

(FOR OFFICE USE ONLY)

AUTH #

DATE

BY

1986 JAMECO Catalog and Sale Flyer mailings will be limited to active buying customers only.

.7" Red Digital LED ClockFITS
IN CC
CLOCK CASE

APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks

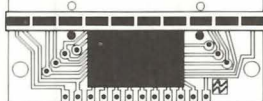
FEATURES: Display size: 0.7 inch. "One-finger" 59-minute sleep counter setting. Multiple 9-minute snooze counter, 24-hr. alarm with on-off control. Entire display

flashes to indicate power loss. Simple fast/slow setting controls. Five display modes (time, seconds, sleep, alarm, and lamp test). User selectable 12/24 hour, 50/60Hz and fixed/flashing colon operation. Leading zero-blanking. Requires only the addition of transformer and setting switches. Direct-drive LED display — no RFL. Continuous "two-level" or automatic display brightness control capability. Back-up oscillator option allows continuous time-keeping during power-line failure with a single 9V battery and external 5M ohm potentiometer. 800Hz (nom.) alarm tone output, gated at 2Hz rate. 24-hour output signal for optional calendar circuit. Separate inputs for all settings and display modes. Data sheet included.

MA1023 Module (3.30"L x 1.50"H x .624"D). \$9.95
102-P20 Transformer for MA1023 Clock Module. \$3.49

10-Segment Bargraph Displays

WITH ON-BOARD DRIVER IC-CHIP

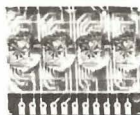


NSM3914

Applications: • Power meter in stereo systems • VU-meter in tape recorders, etc.

Bar or dot display mode externally selectable by user. Packages are end-stackable for extended displays. Can be cascaded to 10 arrays (100 bargraph elements). LED current programmable from 2mA to 30mA. Stable internal voltage reference for full scale analog inputs from 1.2 to 12V. Size: 2"L x 1 1/8"H x 3/8"D (1.60"L x .063"H per BAR).

Part No.	Description	Price
NSM3914	Linear Function (10 bars red).	\$5.95
NSM39146	Linear Function (6 bars green/4 red).	\$6.95
NSM3915	Logarithmic Function (10 bars red).	\$5.95
NSM39158	Logarithmic Function (6 green/2 yellow/2 red).	\$6.95
NSM3916	VU-Meter Function (10 bars red).	\$5.95
NSM39168	VU-Meter Function (6 green/2 yellow/2 red).	\$6.95

4-Digit 16/17-Segment**Red Alphanumeric Intelligent Display****Memory, Recorders & Driver**

End-stackable, 4 character package. High contrast, 160mm high, magnified monolithic characters. 64-Character ASCII format. Built-in memory, decoder, multiplexer and drivers. Direct access to each digit independently and asynchronously. 5V logic, TTL compatible. 5V power supply only. Independent cursor function. Size: (NSM1416): 1"L x 1 1/8"H x .225"D (NSM2416): 1"L x 3/4"H x .245"D

Part No.	Description	Price
NSM1416	4-Digit 16-Seg. Display.	\$ 9.95
NSM2416	4-Digit 17-Seg. Compact Display.	\$14.95

.7" Red Digital LED Alarm Clock/Thermometer

APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks • Thermometers ("C" or "F")

FEATURES: 0.7" — 4-digit LED display. "One-finger" 59-minute sleep counter setting. Multiple 9-minute snooze counter. 24-hour alarm with on/off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. 6 display modes (temperature, time, seconds, alarm, sleep and lamp test). User selectable "C"/"F". 12/24 hour, 50/60Hz and fixed/flashing colon function. Leading zero blanking. Complete system requires addition of transformer, setting switches and sensor. Direct-drive LED display — no RFL. Bright/dim or cont. display brightness control capability. 800Hz (nom.) alarm tone output, gated at 2Hz rate. 24-hour output signal for optional calendar circuit. Separate inputs for all setting and display modes. Data sheet included.

MA1026 Module (3.75"L x 1.75"H x .812"D). \$24.95
102-P22 Transformer for MA1026 Clock Module. \$ 3.49
LM334Z Constant Current Source (Temp. Sensor). \$ 1.19

0.3" Green Digital 12VDC Clock Module**NEW!**

APPLICATIONS: • In-dash autoclocks • After-market auto/recreational vehicle clocks • Aircraft-marine clocks • 12VDC operation instruments • Portable/battery powered instruments

FEATURES: Bright 0.3" green display • Internal crystal timebase • ±0.5 second/day accuracy • Automatic display brightness control logic • Display color filterable to blue, blue-green, green and yellow • Hour/minute switches already mounted — Ready-to-go • Complete with instructions • Size: 2 1/2"L x 1 1/8"H x 1 3/8"D

MA3003 12VDC Digital Display Module. \$4.95



5-LT-43B1

**.5" Vacuum Fluorescent Display**

The device is a 4-digit fluorescent display. The display features 10 bar indicators and a colon indicator. It is ideal for use in timer clocks and other such appliances and applications. Blue-green illuminations. Size: 3 3/8"L x 1 1/8"H x 3/8"D (Leads: 3/4" long). For use as an alarm clock, use the MK50250 clock chip. Used in the JE750 Alarm Clock Kit.

Part No.	Description	Price
5-LT-43B1	4-Digit Plus Colon.	\$2.95
MK50250	4/6 Digit Alarm w/Snooze Clock Chip.	\$6.95

**0.5" 4-Digit LED Display with Serial Data/Parallel Data-Out LED Driver**

APPLICATIONS: • COPS™ or microprocessor display • Digital clocks • Thermometers • Counters • Voltmeters • Instrumentation readouts

FEATURES: The NSM4005A is a 4-digit 0.5" height LED display with a serial data/parallel data-out LED driver designed to operate with minimal interface to the data source. Current drive to the LEDs is programmable by setting a reference current to a single pin. • Four 0.5" digits with right-hand decimal points • LED current is programmable • Serial data input • Clock format — colon between center digits • Enable • TTL compatible • Wide power supply operation • Direct current drive (non-multiplexed) • Size: 1.99"L x 1.70"H x .287"D

Part No. NSM4005A LED Display with Driver. \$7.95

.5" 3 1/2-Digit Field Effect LCD

AND

FE0203D

APPLICATIONS: • Digital voltmeters, thermometers, pressure gauges, timers, and clocks. Used with Intersil's 7106CPL (\$8.95 ea.) and 7116CPL (\$8.95 ea.) — Page 5.

FEATURES: • Reflective LCD gives a dark display on a light background • "Low Battery" indicator • Ready to mount • 40-pin package (no connector required) • Size: 2.00"L x 1.20"H x .10"D (.10" pin spacing)

Part No. FE0203D Field Effect LCD with Pins. \$12.95

.5" 4-Digit Field Effect LCD

AND

FE0202D

APPLICATIONS: • Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format), and frequency counters. Used with Intersil's 7211IPL (TTL-compatible, \$7.95 ea.) and 7211MIPL (micro-compatible, \$8.49 ea.) — page 5.

FEATURES: • Reflective LCD gives a dark display on a light background • High visibility • Ready to mount • 40-pin package (no connector required) • Size: 2.00"L x 1.20"H x .10"D (.10" pin spacing)

Part No. FE0202D Field Effect LCD with Pins. \$12.95

OPTOELECTRONICS

SC-Single Channel

OPTO-ISOLATORS

CTR-Current Transfer Ratio

Part No.	Pins	Skt. Req.	Description	Price
IL-1	6	8	SC 50% CTR, 2500V (LIT-1)	\$.69
MCT-6	6	8	Dual Photo Trans. 1500V (ILD74)	1.95
H11C3	6	8	SCR Output Opto-Isolators	.99
4N25	6	8	SC 50% CTR, 2500V (MCT-2/LIT-1)	.69
4N26	6	8	SC 50% CTR, 1500V (Photo-Trans.)	.69
4N28	6	8	SC 50% CTR, 500V (Photo-Trans.) MOC1003	.59
4N33	6	8	SC 500% 1500V (Photo-Darl.)	.89
4N35	6	8	High DC CTR (100%), 2500V (Photo-Trans.)	.89
FCD865C	6	8	Optically-Coupled Darl. Isolator (Hi-Sensitivity)	.49★
MOC1006	6	8	SC Opto-Coupler 5000V	.89★
MOC3010	6	8	Optically Isolated Triac Driver	1.25
MOC3031	6	8	Opto-Isol. Zero Volt. Crossing Triac Driver (250V)	1.95
6N138	8	8	Hi-Gain Split-Darl., 300% CTR, 3000V	2.95

Typical Forward Voltage 1.60-2.20V
Typical DC Forward Current 50mA

LEDs

• R-Red • G-Green
• Y-Yellow • C-Clear

6V MINI LAMP INCANDESCENT

Part No.	1-99	100+
800-147 Clear w/5" leads	9/1.00	.10 ea.
80620 Red w/5" leads	9/1.00	.09 ea.

DIFFUSED BI-COLOR/TRI-STATE

Reverse polarity to change color.

Part No.	1-99	100-999	1000+
XC5491	4/1.00	.20 ea.	.17 ea.

DIFFUSED

Part No.	1-99	100-999	1000+
XC209R	5/59	.10 ea.	.08 ea.
XC209G	4/69	.13 ea.	.11 ea.
XC209Y	4/69	.13 ea.	.11 ea.

POINT SOURCE

Part No.	1-99	100-999	1000+
XC554R	5/79	.12 ea.	.10 ea.
XC554G	4/79	.15 ea.	.13 ea.
XC554Y	4/79	.15 ea.	.13 ea.

POINT SOURCE

Part No.	1-99	100-999	1000+
XC556R	5/49	.09 ea.	.07 ea.
XC556G	4/59	.13 ea.	.11 ea.
XC556Y	4/59	.13 ea.	.11 ea.

DIFFUSED RECTANGULAR

Case Size: .150W x .250L x .271H
Lead Length: 13/16"

Part No.	1-99	100-999	1000+
XC57124R	4/59	.13 ea.	.11 ea.
XC52124G	3/79	.23 ea.	.19 ea.
XC53124Y	3/79	.23 ea.	.19 ea.

POINT SOURCE (RED)

Part No.	1-99	100+
MV10B	8/1.00	.10 ea.

POINT SOURCE (Red)

Part No.	1-99	100+
MV50	6/1.00	.15 ea.

Diffused Bi-Color T1 3/4 .200

Part No.	1-99	100-999	1000+
XC52RG (LTL-52RG)	4/9 ea.	.39 ea.	.39 ea.

Leads: 1) Green 2) Common Cathode 3) Red

DIFFUSED .200 (T1 3/4)

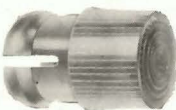
Part No.	1-99	100-999	1000+
XC556R	5/49	.09 ea.	.07 ea.
XC556G	4/59	.13 ea.	.11 ea.
XC556Y	4/59	.13 ea.	.11 ea.

DIFFUSED RECTANGULAR

Case Size: .150W x .250L x .271H
Lead Length: 13/16"

Part No.	1-99	100-999	1000+
XC57124R	4/59	.13 ea.	.11 ea.
XC52124G	3/79	.23 ea.	.19 ea.
XC53124Y	3/79	.23 ea.	.19 ea.

CLIPLITE LED Mounting System

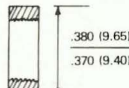
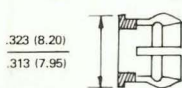


CLIPLITE mounts from the front of the panel in a .250 hole on 3/8" centers. Panel thickness from 1/16" to 1/8". CLIPLITE equalizes and increases the brightness of commonly used wide beam LEDs. CLIPLITE will accept LED diameters from .160 to .210 dia. Can be used with XC22, XC111, XC526, XC554 and XC556 Series.

PRICING

Part No.	Color	1-99	100-999	1000 +
RTP280	Red	4/\$.69	.15 ea.	.12 ea.
GTP280	Green	4/\$.69	.15 ea.	.12 ea.
CTP280	Clear	4/\$.69	.15 ea.	.12 ea.
ATP280	Amber	4/\$.69	.15 ea.	.12 ea.
YTP280	Yellow	4/\$.69	.15 ea.	.12 ea.

LED Mounting Hardware



— Black Plastic Clip & Ring —

Mounts in panels up to .125" thick. Drill .257" diameter hole (F Drill). Can be used with any series LED from .160" to .200" diameter.

PRICING

Part No.	1-99	100-999	1000 +
LMH-200	8/\$.79	.07 ea.	.05 ea.

Used With Popular LEDs:

- XC22
- XC52RG
- XC111
- XC526
- XC554
- XC556
- XC5491

CA — Common Anode
CC — Common Cathode

DISPLAYS — LHDP-Left Hand Decimal Point
RHDP-Right Hand Decimal Point



MAN 72



MAN 6610



5082-7750



NSN373

Part No.	Socket Required	Size	Color	Description	Price
DLG500	24	.500	Green	CC (RHDP)	\$.49★
DL704	14	.300	Red	CC (RHDP) SEA 3111	1.25
DL707	14	.300	Red	CA (LHDP) MAN72	.75
FND350	10	.362	Red	CA (RHDP)	.75
FND357	10	.362	Red	CC (RHDP) SEA 3410	.89
FND503	24	.500	Red	CC (RHDP) SEC 50101B	.89
FND507	24	.500	Red	CA (RHDP) SEA 5010	.89
HDSP-3401	24	.800	Red	CA (RHDP) SEA 8000	1.25
HDSP-3405	24	.800	Red	CC (LHDP) SEC 8100	1.25
MAN2	14	.320	Red	5x7 Alphnumeric (TIL305)	3.95★
MAN71	14	.300	Red	CA (RHDP)	.75
MAN72	14	.300	Red	CA (LHDP) SEA 3101	.75
MAN73	14	.300	Red	CA (± 1) Over Flo	.75
MAN74	14	.300	Red	CC (RHDP) XAN3064	.75
MAN82	14	.300	Yellow	CA (LHDP)	.35★
MAN84	14	.300	Yellow	CC (RHDP)	.35★
MAN6610	24	.560	Orange	CA (RHDP) 2 Digit DL728	1.49
MAN6630	24	.560	Orange	CA (± 1) 1 1/2 Digit	.99
MAN6640	24	.560	Orange	CC (RHDP) 2 Digit	1.49
MAN6650	24	.560	Orange	CC (± 1) 1 1/2 Digit	.99
MAN6660	24	.560	Orange	CA (RHDP)	.99
MAN6710	24	.560	Red	CA (RHDP) 2 Dig. (MAN6910)	.99
MAN6740	24	.560	Red	CC (RHDP) 2 Dig. SEC 5215	1.49
MAN6750	24	.560	Red	CC (± 1) 1 1/2 Digit	.99
NSN64R	24	.630	Red	CC (RHDP) DL750	.49★
NSN74L	14	.300	Red	CC (LHDP) DL702	.49★
TIL308	16	.270	Red	Num. Disp. w/Logic	11.95
TIL311	14	.300	Red	4x7 Hex. w/Logic	10.95
5082-7300	24	.600	Red	4x7 Num. (RHDP)	14.95★
5082-7304	24	.600	Red	O.F. (± 1) for 5082-7300/02	14.95★
5082-7620	14	.300	Yellow	CA (LHDP)	.29★
5082-7653	14	.430	Red	CC (RHDP) (DL7653)	.39★
5082-7660	14	.430	Yellow	CA (LHDP)	.39★
5082-7663	14	.430	Yellow	CC (RHDP)	.39★
5082-7730	14	.300	Red	CA (LHDP)	.39★
5082-7731	14	.300	Red	CA (RHDP)	.39★
5082-7750	14	.430	Red	CA (LHDP)	.39★
5082-7751	14	.430	Red	CA (RHDP)	.39★
5082-7756	14	.430	Red	O.F. ± 1 (RHDP) (NSN7756)	.39★

—Inquiries welcome for quantity discounts—

LITRONIX — MULTI-DIGIT REFLECTOR ARRAYS P.C. BOARD MOUNTED

Part No.	Digit Size (Red)	Drive CC/CA	Overall Size (Inches) L x H x D	PRICE
DL-2310	.30 (No dec.)	CA 2 Digit Multiplexed	.794 x .750 x .194	.25★
FNA3223	.30 (No dec.)	CA 2 Digit Multiplexed	.794 x .750 x .194	.25★

NATIONAL — MULTI-DIGIT REFLECTOR ARRAYS P.C. BOARD MOUNTED

Part No.	Digit Size (Red)	Drive CC/CA	Overall Size (Inches) L x H x D	PRICE
NSN373	.3 (No dec.)	CC 2 Digit Direct	.80 x .80 x .225	.25★
NSN382	.3	CA 2 Digit Multiplexed	.80 x .80 x .225	.29★
NSB3411	.3	CC 4 Digit — Colon/PM Ind. Multiplexed	1 1/8 x 1 1/8 x 3/8	.25★
NSB3881	.3	CC 4 Digit Multiplexed	1.59 x .80 x .225	5.95
NSB3882	.3	CA 4 Digit Multiplexed	1.59 x .80 x .225	5.95
NSB5382	.5	CA 3 1/2 Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5441	.5	CA 4 Digit — AM/PM, Colon Ind.	3.00 x 1.10 x .282	1.49★
NSB5881	.5	CC 4 Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5882	.5	CA 4 Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5922	.5	CA 5 Digit Multiplexed	3.00 x 1.10 x .282	.99★
NSB7923*	.7	CC 6 Digit Multiplexed/ Direct†	3.60 x 1.35 x .292 (1/8 inch pins)	1.95★

*Can be both Multiplexed/Direct by connecting all segments together

★Priced below our cost and will be discontinued by JAMECO after stock is sold.

GRAB BAGS

Assorted Switch Grab Bag



Over 40 each of assorted Slide, Rocker, Toggle, Micro and Push-button Switches.

GB165. . . \$8.00 each

NEW!

Coleco Game Board



Over 150 components, including 8 ea. 4116's, Z80A, 14 ea. 74LS Devices, 3 connectors, 1/4 watt resistors, capacitors, diodes, etc. Size: 9 3/4" L x 10" W x 1" H

GB191. . . \$4.95

NEW!

Coleco Computer Board



Over 150 components, including 8 ea. 4164's, 8 ea. 74LS Devices, Linear IC's, 5 connectors, 6 sockets, coils, crystals, 1/4 watt resistors, capacitors, diodes, etc. Size: 14" L x 5 1/2" W x 3/4" H

GB192. . . \$6.95

Mabuchi Robotics Toy Motor



Size: .937" OD, 1.20" L. Operating voltage 1.5V to 6.0V. DC Voltage: 3.0. RPM: 9200 @ .20 Amp. Small torque: 0.97 oz. in.

GB182. . . 5 for \$2.00

• Good, Usable Assortments • Super Savings • Over 1,000,000 Grab Bags Sold

— Spec Sheets Not Available —

CAPACITORS

Part No.	Description	Price
GB100	100 each Ceramic Disc (10pf-1mf).	\$2.00
GB101	60 each Mylar.	3.00
GB102	60 each Electrolytics.	4.00
GB103	40 each Tantalum (tubular and dipped).	4.00
GB176	40 each Dipped Micaps (10pf-1000pf @ 100-500V).	4.00

INTEGRATED CIRCUITS

GB108	50 each TTL Series — marked. (7400, 74L, 74H, 74S, etc.)	\$4.00
GB109	30 each Linear — marked. (LM301, 307, 741, 308, XR2262, etc.)	4.00
GB150	20 each Shift Registers — marked. (2510, 2518, 2532, 2533, etc.)	4.00
GB157	50 each DTL Series — marked. (DM930, 932, 936, 946, etc.)	5.00
GB158	6 pcs. Positive Voltage Regulators (TO-3 case). (7805, 06, 12, 15, 18, 24, etc.) Linear marked	4.00
GB159	6 pcs. Negative Voltage Regulators (TO-3 case). (7905, 06, 12, 15, 18, 24, etc.) Linear marked	4.00
GB170	25 each Assorted 74LS TTL Series.	3.00
GB172	10 pcs. 78M Positive Voltage Regulators (TO-5 case). (78M05, 08, 12, 15, 20, 24, etc.) Linear marked	4.00
GB181	25 pcs. RAMs and PROMs — marked. (1103, 2102, 4116, 5261, 5262, 82S10, S11, S16, S21, S23, S25, S123, S126, S129, etc.)	4.00

LEDs — READOUTS

GB110	100 each Assorted LEDs (various colors and sizes). (XC556, XC526, etc.)	\$6.00
GB162	50 each 7-Segment Displays and Stick Displays. (various colors and sizes)	9.00
GB186	500 each (same description as GB110 above).	15.00

POTENTIOMETERS

GB113	30 each Miniature Trimmers (100 ohm-1 Meg).	\$2.00
GB134	24 each 3/8" square single-turn PC Mount. (untested — 10 ohm to 500 ohm) marked	2.00
GB135	24 each 3/8" square single-turn PC Mount. (untested — 1K to 50K) marked	2.00
GB174	25 each 1/4 watt thumbwheel single-turn. (500 ohm to 5 Meg)	2.00
GB183	10 pcs. Linear Slide Potentiometers (500Ω to 500K).	5.00
GB184	25 pcs. Volume Control Pots. (100Ω thru 100K) no bushing	3.00

JAMECO'S SURPRISE GRAB BAG

Over 100 miscellaneous electronic components and hardware (keyboard included). You'll be surprised —

GB190 Any GB190 is WORTH 3 TIMES ITS PRICE! \$9.95

DIODES

Part No.	Description	Price
GB107	100 each Silicon (1N914/1N4148/1N4444).	\$3.00
GB164	200 each marked, unmarked rectifiers and zeners.	2.00
GB171	80 ea. Assorted Germanium, marked and unmarked.	2.00
GB175	100 each 1-3 amp (cathode band) silicon rectifiers.	3.00

RESISTORS

GB116	200 each 1/4 watt resistor assortment.	\$2.00
GB117	200 each 1/2 watt resistor assortment.	2.00
GB118	30 each Wire Wound 5, 10, 20W (.1-100 ohm).	4.00
GB154	100 each 1 and 2 watt resistor assortment.	2.00

SWITCHES

GB126	25 each Miniature slide.	\$3.00
GB165	40 assorted toggle, rocker, pushbutton.	8.00
GB179	20 each Dip Switches (assorted positions).	8.00

HARDWARE

GB139	40 each Terminal Strips.	\$3.00
	Solder and screw types (3 to 8 terminals)	
GB140	150 each Spacers, standoffs, insulators. (metal, nylon and plastic)	2.00
GB141	200 each Washers and Spacers (nylon and teflon).	2.00
GB142	50 each Chassis mounting feet (rubber and plastic).	2.00
GB144	200 each Solder lugs (small).	2.00
GB145	100 each Lugs—crimp-on (some insulated).	2.00
GB166	48 Threaded metal and plastic spacers (1/2-2" long).	2.00
GB167	200 pieces sheet metal and metal tapping screws.	2.00
GB168	200 pieces angle brackets, clip insulators, etc.	3.00

POPULATED PRINTED CIRCUIT BOARDS

GB160	1 Printed Circuit Board. (Contains 50-75 components on each board)	2.00
GB191	Coleco TV Game Board (see picture at top of page). (Contains over 150 components, 8 ea. 4116's, Z80A, etc.)	4.95
GB192	Coleco Computer Board (see picture at top of page). (Contains over 150 components, 8 ea. 4164's, 74LS IC's, etc.)	6.95

MISCELLANEOUS

GB123	30 each Heat Sinks — assorted sizes.	\$3.00
GB124	6 each assorted calculator-type keyboards.	5.00
GB127	100 each Transistors — plastic and power.	3.00
GB128	30 each Toroid Cores — iron and tape.	4.00
GB131	30 each 6" shrink tubing, assorted sizes and colors.	4.00
GB137	50 each Chokes, coils and inductors. (molded, wire and adjustable)	3.00
GB138	2 each Speakers, 2 1/2", 8 ohm, .30 watt.	1.95
GB163	30 each Sockets (assorted IC and transistor).	4.00
GB177	200 ea. 1" shrink tubing, assorted colors and sizes.	3.00
GB182	5 each Toy Motors (operating voltage 1.5V-6.0V).	2.00
GB185	20 each Knobs (assorted styles, sizes and colors).	3.00
GB187	25 each Assorted Cherry Keycaps.	2.00

POWER CORD GRAB BAG

NEW!

10 each Assorted Power Cords (open end, 2-conductor, and 3-conductor)

GB188 PLUG INTO A GOOD DEAL! \$4.95

— ALL GRAB BAGS ARE NON-RETURNABLE —

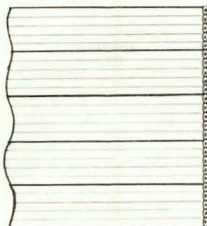
WIRE, CABLE, POWER CORDS, AND LINE FILTERS

LARGE SELECTION OF ADDITIONAL POWER CORDS IS AVAILABLE — PLEASE REQUEST SPECIAL POWER CORD FLYER #129

30 AWG KYNAR WIRE WRAP SOLID CONDUCTOR WIRE

Part No.	AWG	Color	25 Ft. (Min.)	100 Feet	1000 Feet
130BE	30 AWG	Blue	\$1.49 lot	\$2.95 C	\$22.95 M
130BK	30 AWG	Black	\$1.49 lot	\$2.95 C	\$22.95 M
130G	30 AWG	Green	\$1.49 lot	\$2.95 C	\$22.95 M
130R	30 AWG	Red	\$1.49 lot	\$2.95 C	\$22.95 M
130W	30 AWG	White	\$1.49 lot	\$2.95 C	\$22.95 M
130Y	30 AWG	Yellow	\$1.49 lot	\$2.95 C	\$22.95 M

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



28 AWG FLAT GREY STRANDED

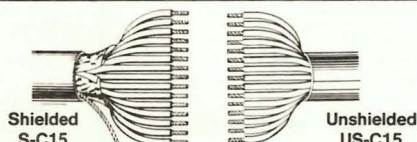
Uses:

- Dip Jumpers
- Insulation Displacement Connectors
- Cable Assemblies

RIBBON CABLE

Part No.	Conductors	Color	1-49 Feet	50-99 Feet	100 Feet
171-9	9	Grey	\$.19	\$.16	\$12.95 C
171-14	14	Grey	\$.25	\$.24	\$20.95 C
171-15	15	Grey	\$.27	\$.25	\$21.95 C
171-16	16	Grey	\$.29	\$.26	\$22.95 C
171-20	20	Grey	\$.35	\$.32	\$27.95 C
171-24	24	Grey	\$.45	\$.39	\$34.95 C
171-25	25	Grey	\$.47	\$.40	\$35.95 C
171-26	26	Grey	\$.49	\$.41	\$36.95 C
171-34	34	Grey	\$.62	\$.55	\$47.95 C
171-36	36	Grey	\$.65	\$.58	\$50.95 C
171-37	37	Grey	\$.69	\$.59	\$51.95 C
171-40	40	Grey	\$.75	\$.70	\$64.95 C
171-50	50	Grey	\$.89	\$.79	\$69.95 C

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



24 AWG Shielded — Unshielded Communication Cable

Part No.	Conductors	Description	1-49 Feet	50-99 Feet	100 Feet
US-C4	4	Unshielded	\$.19	\$.17	\$14.95 C
US-C9	9	Unshielded	\$.45	\$.39	\$34.95 C
US-C15	15	Unshielded	\$.59	\$.55	\$49.95 C
US-C25	25	Unshielded	\$.89	\$.85	\$79.95 C
S-C4	4	Shielded	\$.29	\$.25	\$19.95 C
S-C9	9	Shielded	\$.59	\$.55	\$44.95 C
S-C15	15	Shielded	\$.79	\$.69	\$59.95 C
S-C25	25	Shielded	\$.99	\$.95	\$89.95 C

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING

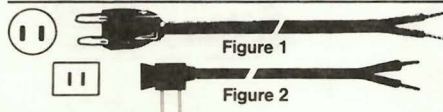


Coaxial Cable

Part No.	1-49 Feet	50-99 Feet	100-999 Feet	1000 Feet
RG58C/U (50 ohm)	\$.29	\$.26	\$22.95 C	\$199.95 M
RG59B/U* (75 ohm)	\$.31	\$.28	\$23.95 C	\$209.95 M

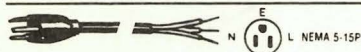
*Used on Cable TV

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



18 AWG TWO CONDUCTOR POWER CORDS

Part No.	Length	Color	Type	1-9	10-99	100+
468-828	6 feet	Black	Figure 1	\$.49	\$.45	\$.39
435-802	13 feet	Black	Figure 2	\$.79	\$.69	\$.59



16/18 AWG THREE CONDUCTOR POWER CORDS

Part No.	Type	Rating	AWG (Stranding)	Length Cord (ft.)	Nom OD (In.)	Insulation	Color	1-9	10-99	100-999
17236	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6	.265	SV Rubber Molded Plug	Black	\$1.69	\$1.55	\$1.45
17238	Fig. 1	1250 Watts 10A-125V	18 (41x34)	8	.265	SV Rubber Molded Plug	Black	\$1.89	\$1.75	\$1.65
17237	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6	.253	SVT Vinyl Molded Plug	Grey	\$1.19	\$1.10	\$1.05
17239	Fig. 1	1250 Watts 10A-125V	18 (41x34)	8	.253	SVT Vinyl Molded Plug	Grey	\$1.45	\$1.35	\$1.25
17250	Fig. 3	1250 Watts 10A-125V	18 (41x34)	7½	.253	SVT Vinyl Molded Plug	Black	\$1.79	\$1.59	\$1.39
17461	Fig. 2	1250 Watts 10A-125V	16 (26x30)	10	.328	SJ Rubber Molded Plug	Black	\$3.95	\$3.75	\$3.49
17740	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6.7	.270	SVT Vinyl Molded Plug	Black	\$3.95	\$3.75	\$3.49

Outer Jacket Stripped 1½"

Figure 1



(17461)
Figure 2



(17250)
Figure 3

Detachable Power Supply Cord
(Fits RFI Filters below)

Shielded Power Cord (17740)
with Special Grounding Ring



corcom

RFI Power Line Filters

General purpose filter effectively provides RFI control of line-to-ground noise • Rating: 3 or 6 Amps; 115-250 Volts, 50/60Hz AC • Contacts: Solder terminals • Size: 2.16" L x 1.97" W x 0.78" H

Part No.	Description	1-9	10-99
3EF1F	3 Amp RFI Filter	\$4.95	\$4.75
6EF1F	6 Amp RFI Filter	\$5.95	\$5.75

Power Cable Kits & Signal Cables for Disk Drives

5 1/4" DISK DRIVE POWER CABLE KIT

Includes:

- One 4-pin connector shell
- Four connector pins
- Four 1 1/2' lengths of 16 AWG wire

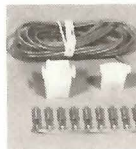


PKC-5. \$2.95

8" DISK DRIVE POWER CABLE KIT

Includes:

- One 3-pin connector shell
- One 6-pin connector shell
- Nine connector pins
- Nine 1' lengths of 16 AWG wire



PKC-8. \$3.95

POWER SPLITTER



FEMALE

FEMALE

PC Owners!

MALE

The PC-Y is a power splitter for disk drives. It splits a four line Molex male into two females for general applications (e.g. two disk drives to one power supply).

PC-Y. \$9.95

SINGLE DRIVE CABLES



5 1/4" DRIVES USE 34-PIN ASSEMBLIES
8" DRIVES USE 50-PIN ASSEMBLIES

Part No.	Drive	Style	1-9	10+
S34-36-C	5 1/4"	M	\$ 6.49	\$5.79
S34-60-C	5 1/4"	N	\$ 7.69	\$6.89
S50-36-C	8"	M	\$ 9.29	\$8.19
S50-60-C	8"	N	\$10.95	\$9.79

DUAL DRIVE CABLES



Part No.	Drive	Style	1-9	10+
S34-36C-18C	5 1/4"	O	\$10.95	\$ 9.69
S34-60C-24C	5 1/4"	P	\$12.19	\$10.79
S50-36C-18C	8"	O	\$15.29	\$13.59
S50-60C-24C	8"	P	\$16.95	\$15.19

SPECIAL! SPECIAL!

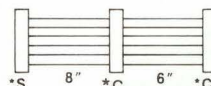
5 1/4" DISK DRIVE CABLES

SPECIAL! SPECIAL!



14" Single Disk Drive Cable

Part No. S34-14-C (3000 available). \$2.95



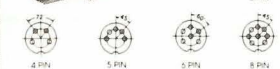
14" Dual Disk Drive Cable

Part No. S34-8C-6C (3000 available). \$4.95

MISCELLANEOUS CONNECTORS AND ASSEMBLIES

Standard DIN Male Plug with strain relief

NEW!



Part No.	Pin	1-9	10+
DIN-P3	3	.69	.59
DIN-P4	4	.75	.65
DIN-P5	5	.79	.69
DIN-P6	6	.99	.89
DIN-P8	8	1.09	.99

Standard DIN Female Socket Metal Body



NEW!

Part No.	Pin	1-9	10+
DIN-J3	3	.51	.47
DIN-J4	4	.53	.49
DIN-J5	5	.57	.53
DIN-J6	6	.59	.58
DIN-J8	8	.89	.79

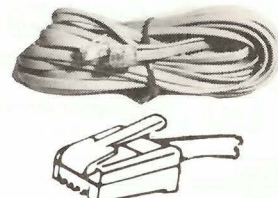
Modular Telephone Adapter



Dual type adapter.
For modem use.

MTA-2 (RJ-11). . . . \$2.95

Modular Telephone Extension Cord



For use with modem equipment. Connects to telephone line. Male connectors on both ends. 25 foot length.

MTE-25 (RJ-11). . . . \$4.95

9 Volt Battery Clip



Standard clip for use with 9 volt transistor batteries. Has 4" leads.

BC9. 9 for \$9.99

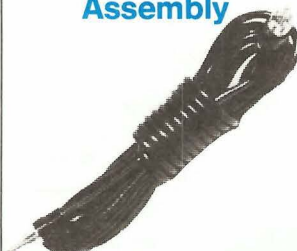
Alligator Clip Test Leads



• Color coded • Insulated alligator clip on each end • 15" long • 10 per package in assorted colors

ALCP. \$2.95/pkg.

RCA to RCA Assembly



• 10 foot RCA male to RCA male
• Great for video/audio applications

RCA-10-RCA. . . \$1.75

Universal Computer to Monitor Cable

NEW!



• For use with Atari, Commodore and Texas Instruments computers • 5-pin DIN male connector to 4 RCA type plugs
• Includes RCA jack to 3.5mm plug - 3'L

RCA-3-DIN. \$3.95

CONNECTORS

PC Card Edge Connectors

PC AND SOLDER EYELET

DOUBLE
READ-OUT



15/30SE

Fits all PC
boards .054" to
.070" (thickness
of board)

Part No.	Contacts	Spacing	Description	1-9	10+
12/24SE	12/24	.156	Solder Eyelet (Commodore) . . .	\$2.49	\$2.25
15/30SE	15/30	.156	Solder Eyelet	\$1.29	\$1.15
18/36SE	18/36	.156	Solder Eyelet	\$1.69	\$1.49
22/44PC	22/44	.156	Printed Circuit	\$1.19	\$.99
22/44SE	22/44	.156	Solder Eyelet	\$1.49	\$1.25
31/62SE	31/62	.100	Solder Eyelet (IBM AT, PC & XT) . . .	\$4.95	\$4.75
R636-2	36/72	.100	Solder Eyelet	\$6.49	\$5.95
50/100SE	50/100	.125	Solder Eyelet (S100)	\$4.95	\$4.49★

DOUBLE
READ-OUT



67031-5

Fits all PC
boards .054" to
.070" (thickness
of board)

WIRE WRAP

Part No.	Contacts	Spacing	Description	1-9	10+
122/44	22/44	.100	W/W type - 2 level	\$2.49	\$1.95
22/44WW	22/44	.156	W/W type - 3 level	\$4.95	\$4.75
R681-1	50/100	.125	W/W type - 3 level (S100)	\$5.95	\$5.75
R681-2	50/100	.125	W/W type - 1 level (S100)	\$4.95	\$4.75★
R681-3	50/100	.125	W/W type - 1 level (S100) (without mounting ears)	\$4.95	\$4.75★
67031-5	22/44*	.156	W/W type - 3 level	\$3.95	\$3.49★

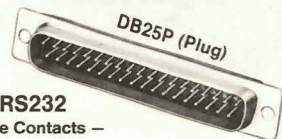
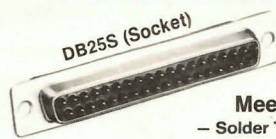
*PINS ARE .0625" WIDE X .03" THICK

CABLE RF COAXIAL CONNECTORS

	PART NO.	DESCRIPTION	FITS CABLE	1-9	10+
	PL259	UHF Plug (83-1SP)	RG8,11	.59	.49★
	SO239	UHF Panel Receptacle (83-1R)	----	.79	.69★
	PL258	UHF Straight Adapter (83-1J)	----	.59	.49★
	UG175/U	UHF Reducing Adapter (83-185)	RG55,58	.35	.29★
	UG88/U	BNC Plug (31-002)	RG55,58	.89	.79
	UG89/U	BNC Jack (31-005)	RG55,58	.99	.89
	UG306/U	BNC Angle Adapter (31-009)	----	2.95	2.75★
	UG260/U	BNC Plug (31-012)	RG59,71	.99	.89
	UG1094/U	BNC Bulkhead Receptacle	----	.75	.65
	RG58C/U	Coaxial Cable	Fits Connector UG175/U,UG89/U	.29/ft. \$22.95/C★	
	RG59B/U	Coaxial (Used for Cable TV)	Fits Connector UG260/U	.31/ft. \$23.95/C★	

★ Priced below our cost and will be discontinued by JAMECO after stock is sold.

D-Subminiature Connectors

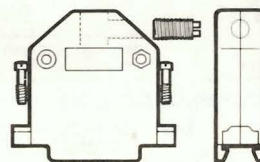


Meets RS232

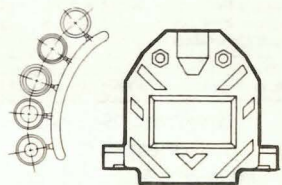
— Solder Type Contacts —

Part No.	Description	1-99	100+
DE9P	9 Contact Plug (RS449)	\$.79	\$.75
DE9S	9 Contact Socket (RS449)	\$.89	\$.85
DA15P	15 Contact Plug (RS422A/423A)	\$.89	\$.85
DA15S	15 Contact Socket (RS422A/423A)	\$1.09	\$.99
DB25P	25 Contact Plug (RS232)	\$1.25	\$1.19
DB25S	25 Contact Socket (RS232)	\$1.49	\$1.39
DB25P-831	25 Contact Right Angle PC Plug (RS232)	\$1.95	\$1.89
DB25S-831	25 Contact Right Angle PC Socket (RS232)	\$2.00	\$1.95
DC37P	37 Contact Plug (RS449)	\$1.95	\$1.89
DC37S	37 Contact Socket (RS449)	\$2.29	\$1.95
DD50P	50 Contact Plug (RS422A/423A)	\$3.39	\$2.95
DD50S	50 Contact Socket (RS422A/423A)	\$3.45	\$3.09
D20418-2	2 Screw Lock Assemblies for mounting any D-Subminiature Connector Hood to a panel	\$.79	\$.65

D-Subminiature Hoods



Plastic Hood with
Strain Relief



Metalized Hood with 5-piece
Grommet Set
Plating: Nickel over Copper

D-Subminiature Connectors accommodate up to 20AWG wire.

Part No.	Max. Cable Size	Price	Part No.	Max. Cable Size	Price
DE-9H	.25"	.63 .57	MDE-9H	.35"	1.15 1.05
DA-15H	.34"	.64 .58	MDA-15H	.35"	1.25 1.15
DB-25H	.375"	.65 .59	MDB-25H	.46"	1.19 .99
DC-37H	.375"	.75 .69	MDC-37H	.68"	1.95 1.75
DD-50H	.45"	.89 .79			

Micro Ribbon Connectors

CABLE TO PANEL OR CABLE TO CABLE

57-30360



57-60360



CENTRONICS — IEEE488
SOLDER TYPE CONTACTS

Part No.	Description	1-99	100+
57-30140	14-Pin Male	\$3.95	\$3.75★
57-60140	14-Pin Female	\$4.49	\$4.25★
57-30240	24-Pin Male (IEEE488)	\$4.95	\$4.75★
57-60240	24-Pin Female (IEEE488)	\$5.95	\$5.75★
57-30360	36-Pin Male (Centronics)	\$3.89	\$3.55
57-60360	36-Pin Female (Centronics)	\$4.29	\$3.89
57-30500	50-Pin Male	\$7.49	\$6.95
57-60500	50-Pin Female	\$8.95	\$8.49

Insulation Displacement Connectors and Connector Accessories

CARD-EDGE CONNECTORS



Mates with double-sided 1/16" PC board with contact fingers on .100" centers

Part No.	No. of Conductors	1-9	10-99	100+
C20	20	1.35	1.25	1.09
C26	26	1.65	1.49	1.29
C34	34	2.05	1.85	1.65
C40	40	2.35	2.10	1.89
C50	50	2.95	2.69	2.39

DIP PLUG CONNECTORS

Pin Spacing: .1"

609-16



Part No.	No. of Contacts/Conductors	1-9	10-99	100+
609-14	14	.69	.65	.59
609-16	16	.79	.69	.65
609-24	24	1.09	.99	.89
609-40	40	1.95	1.89	1.69

SOCKET CONNECTORS

Mates with 2 rows of .025" sq. or dia. posts on patterns of .100" centers and shielded receptacles



Part No.	No. of Contacts/Conductors	1-9	10-99	100+
S10	10	.79	.73	.65
S20	20	1.09	.99	.89
S26	26	1.29	1.19	1.05
S34	34	1.59	1.45	1.29
S40	40	1.79	1.65	1.45
S50	50	2.25	2.05	1.79
S60	60	2.59	2.35	2.09

RIBBON CONNECTORS

36-Pin Centronics



24-Pin IEEE488

CEN36M

Part No.	No. of Contacts/Style	1-9	10-99	100+
CEN14M	14 Male	5.29	4.75	4.25
CEN14F	14 Female	5.19	4.59	4.15
CEN24M	24 Male	6.19	5.59	4.95
CEN24F	24 Female	6.39	5.79	5.15
CEN36M	36 Male	4.95	4.75	4.49
CEN36F	36 Female	5.25	4.95	4.75

28AWG FLAT GREY CABLE

Part No.	No. of Contacts/Conductors	Connector and Wire Type	1-49 Feet	50-99 Feet
171-9	9	28AWG Flat Stranded	.19	.16
171-14	14	28AWG Flat Stranded	.25	.24
171-15	15	28AWG Flat Stranded	.27	.25
171-16	16	28AWG Flat Stranded	.29	.26
171-20	20	28AWG Flat Stranded	.35	.32
171-24	24	28AWG Flat Stranded	.45	.39
171-25	25	28AWG Flat Stranded	.47	.40
171-26	26	28AWG Flat Stranded	.49	.41
171-34	34	28AWG Flat Stranded	.62	.55
171-36	36	28AWG Flat Stranded	.65	.58
171-37	37	28AWG Flat Stranded	.69	.59
171-40	40	28AWG Flat Stranded	.75	.70
171-50	50	28AWG Flat Stranded	.89	.79

D-SUBMINIATURE CONNECTORS



CDB25P

Part No.	No. of Contacts/Style	1-9	10-99	100+
CDE9P	9 Male	2.65	2.35	2.09
CDE9S	9 Female	2.89	2.65	2.39
CDA15P	15 Male	2.95	2.85	2.79
CDA15S	15 Female	3.19	3.09	2.95
CDB25P	25 Male	3.49	3.25	2.95
CDB25S	25 Female	3.75	3.49	3.25
CDC37P	37 Male	5.69	5.49	5.29
CDC37S	37 Female	6.75	6.39	6.09

CUSTOM ASSEMBLIES

Use the part numbers from the connectors and cable to order your own custom assembled cables.

Example: If you desire a 25-foot cable with a male "Centronics" connector on one end, and a female "Centronics" connector on the other end, you would order: CEN36M-25'-CEN36F Custom

\$4.95 (CEN36M) + \$5.25 (CEN 36F) =	\$10.20
\$.65 X 25 (25 feet of 36 conductor cable) =	\$16.25
\$5.00 Set-up charge on all custom cables =	\$ 5.00
This (CEN36M-25'-CEN36F Custom) Cable would cost.	\$31.45

Please specify "CUSTOM" after the part number to ensure your order will be filled correctly. (IMPORTANT: Please specify cable length in FEET, not inches.) All Custom Cable Assemblies must be prepaid BEFORE assembly. There are no returns on Custom Cable Assemblies. There is a \$5.00 set-up charge (per style) on all custom cables.

Shorting Socket Jumpers

Mate with Male Headers



• Designed as a shorting socket jumper to address or code strip line plugs • Mates to .025" sq. posts on strip line plugs • Mates to .100" ctrs. in all grid directions

Part No.	Style	1-9	10-99	100+
J-Open	Open	.20	.18	.16
J-Closed	Closed	.20	.18	.16

Straight Male Headers Double Row



• Snap apart to fit your application • Solder to PC boards for instant plug-in access via shorting socket jumpers (left) • .025" square posts on a .100" x .100" matrix

Part No.	No. of Posts	1-9	10-99	100+
923862R	20	.65	.59	.52
923863R	26	.83	.75	.65
923864R	34	.95	.87	.75
923865R	40	1.25	1.15	.99
923866R	50	1.49	1.35	1.19

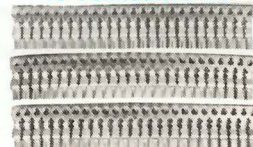
Right-Angle Male Headers— Double Row



• Snap apart to fit your application • Solder to PC boards for instant plug-in access via shorting socket jumpers (left) • .025" square posts on a .100" x .100" matrix

Part No.	No. of Posts	1-9	10-99	100+
923872R	20	.83	.75	.65
923873R	26	1.05	.95	.83
923874R	34	1.39	1.25	1.10
923875R	40	1.59	1.45	1.29
923876R	50	1.95	1.79	1.59

MOLEX PINS IC Connector Pins



• Pin Spacing: .100" • Size: 5/16"H • Pre-packaged in strips • Min. order: 100 pins (20-pin strips) • 1000 pins (100-pin strips)

Part No.	100-999	1000-9999	10,000+
M-530-1	1.95/C	17.95/M	14.95/M

"RS232"



JRS-PP

JAMECO GENDER CHANGERS

USED TO INTERFACE 2 CONNECTORS WHICH HAVE THE SAME GENDER

Double-End DB25P (Plug)
Assembly to Interface Two
DB25S (Socket) Connections

Part No. JRS-PP..... \$7.95

Double-End DB25S (Socket)
Assembly to Interface Two
DB25P (Plug) Connections

Part No. JRS-SS..... \$7.79



JCEN-MM

"CENTRONICS"

Double-End CEN36M (Male)
Assembly to Interface Two
CEN36F (Female) Connections

Part No. JCEN-MM..... \$9.95

Double-End CEN36F (Female)
Assembly to Interface Two
CEN36M (Male) Connections

Part No. JCEN-FF..... \$9.79

JAMECO NULL-MODEM ASSEMBLIES

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily. Internal pin configuration: 1-1, 2-3, 3-2, 5+6+8-20, 20-5+6+8

Part No.	Description	Price
M-NUL-M	DB25P (Plug) to DB25P (Plug) Null Modem.....	\$11.49
M-NUL-F	DB25P (Plug) to DB25S (Socket) Null Modem.....	\$11.75
F-NUL-F	DB25S (Socket) to DB25S (Socket) Null Modem.....	\$11.95
M-NUL-M6'	DB25P (Plug) to DB25P (Plug) Null Modem 6' Assembly.....	\$13.49
M-NUL-F6'	DB25P (Plug) to DB25S (Socket) Null Modem 6' Assembly.....	\$13.75
F-NUL-F6'	DB25S (Socket) to DB25S (Socket) Null Modem 6' Assembly.....	\$13.95
TT-25	Dual DB25 Hood Only.....	\$ 1.25



F-NUL-F

Insulation Displacement Cable Assemblies

SOCKET CABLES

SE = Single End
DE = Double End

Mates with .025" dia. posts on patterns of .100" centers
ALL SOCKET CABLES ARE LISTED IN INCHES

A
Socket with 36" Cable

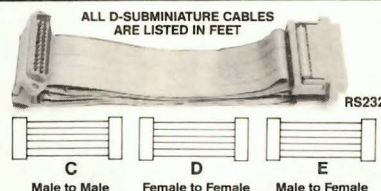
Part No.	No. of Contacts	Style	Length (Inches) Desc.	1-9	10+
S20-36	20	A	36" SE	2.59	2.35
S26-36	26	A	36" SE	2.95	2.69
S34-36	34	A	36" SE	3.65	3.29
S40-36	40	A	36" SE	3.95	3.69
S50-36	50	A	36" SE	4.95	4.45

B
Socket to Socket

Part No.	No. of Contacts	Style	Length (Inches) Desc.	1-9	10+
S20-6-S	20	B	6" DE	3.29	2.85
S20-18-S	20	B	18" DE	3.59	3.19
S26-6-S	26	B	6" DE	3.75	3.29
S26-18-S	26	B	18" DE	4.19	3.75
S34-6-S	34	B	6" DE	4.49	3.95
S34-18-S	34	B	18" DE	4.95	4.49
S40-6-S	40	B	6" DE	4.95	4.49
S40-18-S	40	B	18" DE	5.75	4.95
S50-6-S	50	B	6" DE	6.29	5.59
S50-18-S	50	B	18" DE	6.95	6.19

"CENTRONICS" DB25P CABLE ASSEMBLIES

Part No.	No. of Contacts	Description	1-9	10+
CEN36M-5	36	5' Single End Male	6.95	5.95
CEN36M-5-M	36	5' Male to Male	9.95	8.95
CEN36M-5-F	36	5' Male to Female	10.49	9.49
CDB25P-5-CEN36M	25	5' CDB25 Male to Centronics Male	9.49	8.49



ALL D-SUBMINIATURE CABLES ARE LISTED IN FEET

Part No.	No. of Contacts	Style	Length (Feet) Desc.	1-9	10+
CDB25P-4-P	25	C	4' DE	7.85	6.85
CDB25P-10-P	25	C	10' DE	9.85	8.85
CDB25S-4-S	25	D	4' DE	7.89	6.89
CDB25S-10-S	25	D	10' DE	9.89	8.89
CDB25P-4-S	25	E	4' DE	7.95	6.95
CDB25P-10-S	25	E	10' DE	9.95	8.95

STANDARD DIP JUMPERS



All DIP Jumpers come with Low Profile DIP Plugs with Heavy Duty Pins for repeated disconnect applications. Pin spacing: .1" SE = Single End DE = Double End

Part No.	No. Pins	Desc.	Cable Length	1-9	10+
DJ14-1	14	Single End	12"	1.59	1.39
DJ14-2	14	Single End	24"	1.79	1.65
DJ14-3	14	Single End	36"	2.09	1.89
DJ14-1-14	14	Double End	12"	2.95	2.75
DJ14-2-14	14	Double End	24"	3.09	2.85
DJ14-3-14	14	Double End	36"	3.49	3.25
DJ16-1	16	Single End	12"	1.65	1.49
DJ16-2	16	Single End	24"	1.95	1.75
DJ16-3	16	Single End	36"	2.29	2.09
DJ16-1-16	16	Double End	12"	2.95	2.79
DJ16-2-16	16	Double End	24"	3.29	3.09
DJ16-3-16	16	Double End	36"	3.59	3.39
DJ24-1	24	Single End	12"	2.09	1.89
DJ24-2	24	Single End	24"	2.59	2.29
DJ24-3	24	Single End	36"	2.95	2.75
DJ24-1-24	24	Double End	12"	3.95	3.59
DJ24-2-24	24	Double End	24"	4.49	3.95
DJ24-3-24	24	Double End	36"	4.95	4.49
DJ40-1	40	Single End	12"	3.29	2.95
DJ40-2	40	Single End	24"	3.95	3.65
DJ40-3	40	Single End	36"	4.85	4.35
DJ40-1-40	40	Double End	12"	5.95	5.39
DJ40-2-40	40	Double End	24"	6.79	5.95
DJ40-3-40	40	Double End	36"	6.89	6.09

COMPUTER CABLE ASSEMBLIES

Parallel Printer Cable



For IBM and Compatibles to Epson-type printers

• 8 foot length • Exceeds FCC EMI/RFI requirements • Full double shield of mylar foil and tinned copper braid • UL listed • 24 AWG wire • Molded, shielded DB25 pin male connector • Chromium plated 36 pin male Centronics connector • Color: beige

IBM-8PC..... \$17.95

Serial Printer/Modem Cable



For serial applications, such as printers and modems

• 6 foot length • Exceeds FCC EMI/RFI req. • Full double shield of mylar foil and tinned copper braid • UL listed • 24 AWG wire • Molded, shielded DB25 pin and female connector • All solder mount pins are plated pins • Pins 1-8 and Pin 20 wired • Color: beige

MMS-2206 (Male to Male)..... \$10.75
MFS-2206 (Male to Female)..... \$10.95

← SHIELDED or UNSHIELDED →

Place Your Peripherals where they'll serve you best!

JAMECO EIA Cables are as easy to use as an extension cord!

Shielded cables keep your signals clean and true. The farther a signal travels, the more likely it can be altered by interference from other equipment or fluorescent lights. This electrical interference can cause static, dropouts or unkeyed characters. Recent FCC regulations now call for limited emissions from commercial and personal systems purchased after 10/1/83.

CONNECTOR	Type	Number of Lines	Cable Length	Male/Female	JAMECO Part No. Male/Male	Female/Female	1-9	PRICE 10+
	Unshielded	4 LINE	10 ft.	U4M-10-F	U4M-10-M	U4F-10-F	\$ 8.95	\$ 7.95
	Shielded	Lines 1,2,3&7 w/lines 8&20 jumpered	10 ft.	S4M-10-F	S4M-10-M	S4F-10-F	\$11.95	\$10.95
	Unshielded	9 LINE	10 ft.	U9M-10-F	U9M-10-M	U9F-10-F	\$14.95	\$13.49
	Shielded	Lines 1-8 & 20	10 ft.	S9M-10-F	S9M-10-M	S9F-10-F	\$17.95	\$16.49
	Unshielded	15 LINE	10 ft.	U15M-10-F	U15M-10-M	U15F-10-F	\$19.95	\$17.95
	Shielded	Lines 1-8,12,14-17,20,22,24, with lines 1 and 7 jumpered	10 ft.	S15M-10-F	S15M-10-M	S15F-10-F	\$22.95	\$19.95
	Unshielded	25 LINE	10 ft.	U25M-10-F	U25M-10-M	U25F-10-F	\$27.95	\$25.95
	Shielded	All Lines Extended	10 ft.	S25M-10-F	S25M-10-M	S25F-10-F	\$31.95	\$29.95

DESIGN YOUR OWN! — INDIVIDUAL CABLES AND CONNECTORS — DESIGN YOUR OWN!

PART NO.	DESCRIPTION	PRICE
205208M	Amp Male Connector Housing.....	\$.69 each
205207F	Amp Female Connector Housing.....	\$.69 each
DB25H	Male/Female Back Shelling.....	\$.65 each
66506	Amp Male Crimp Pins.....	\$.12 each
66504	Amp Female Crimp Socket Pins.....	\$.14 each
US-C4	4-Line Cable — Unshielded.....	\$.19/foot
US-C9	9-Line Cable — Unshielded.....	\$.45/foot

PART NO.	DESCRIPTION	PRICE
US-C15	15-Line Cable — Unshielded.....	\$.59/foot
US-C25	25-Line Cable — Unshielded.....	\$.89/foot
S-C4	4-Line Cable — Shielded.....	\$.29/foot
S-C9	9-Line Cable — Shielded.....	\$.59/foot
S-C15	15-Line Cable — Shielded.....	\$.79/foot
S-C25	25-Line Cable — Shielded.....	\$.99/foot
RTT-2	2 ea. 24AWG 6" GND Wires w/Ring Terms. on 1 end ...	\$.89/pkg
IT-S25	Insertion/Extraction Tool.....	\$1.95 each

TOOLS, SOLDER AND ACCESSORIES

UL
Approved

SOLDERING IRON



- Heavy duty • Lightweight
- 110-120V - 30 Watt • Size: 10" long

Part No.	Description	Price
SG-30	Solder Iron.	\$4.95
SG-Tip	Replacement Tip.	\$.99

SOLDER WICK

- Economical desoldering method
- Removes excess solder without damage to board or circuitry • 5 feet

Part No.	Width	1-9	10+
40-1	.025"	\$1.49	\$1.19
40-2	.050"	\$1.49	\$1.19
40-3	.075"	\$1.49	\$1.19



SOLDER - 5-CORE RESIN



Dispenser Pak for Diodes, Transistors, Printed Circuits, Fine Wires. Extra thin, extra fast, non-corrosive, 13 feet. 60-tin/40-lead (SN60). 22 awg. .028" diameter.

Part No. PC115. \$2.95

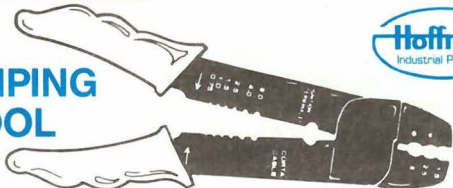
Electronic Solder

- 60% Tin • 40% Lead • Rosin Core
- 32 ft. • .045" diameter • Weight: 2.5 oz.

PART NO.	PRICE
SK-15	\$3.99

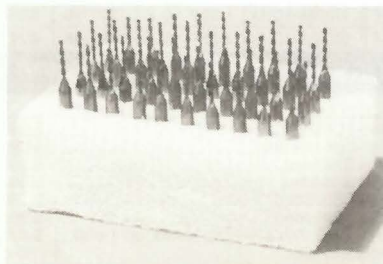


CRIMPING TOOL



- Standard/Light Duty • Electrical and general purpose • Crimps insulated terminals sizes 22-10 gauge • Strips wire 22-10 gauge • Molded vinyl grips • Stamped steel construction • Ideal for use with Solderless Terminal Kit A18K

PART NO.	DESCRIPTION	PRICE
Y401	Crimping Tool	\$4.95



PC DRILL BITS - Reconditioned -

POPULAR
BITS!

Part No.	Drill Description	Size	Application	1-9	10-99	100+
Bit D57	.043	57	Plated through holes, etc.	\$1.29	\$1.19	\$1.09
Bit D64	.036	64	IC's, 1/4W resistors, etc.	\$1.29	\$1.19	\$1.09
Bit D68	.031	68	IC's, 1/4W resistors, etc.	\$1.29	\$1.19	\$1.09

Material: Carbon Steel

SPIRAL STEP TOOL COMPANY

WAHL

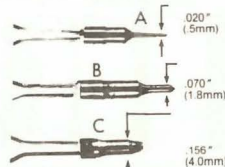
QUICK-CHARGE CORDLESS SOLDERING IRONS

This versatile tool weighs only six ounces, and can be operated without power anywhere. It gives the performance of a 50 watt iron with a tip temperature of over 700°F. It will solder an average of 160 3-twist 22-gauge wire joints on one charge. Heats in 5 seconds. Complete with recharger. Model 7700 includes 1 fine and 1 heavy-duty tip. Model 7800 includes 1 fine tip and 1 chisel tip.



Part No.	Price
MODEL 7700	\$39.95
(Recharges 3-4 1/2 hours)	
MODEL 7800	\$49.95
(Recharges 60 minutes)	

REPLACEMENT TIPS



#7566 "A" (Micro)	\$3.49
#7545 "B" (Fine)	\$3.49
#7535 "C" (Regular)	\$3.49

SOLDER

.031" Diameter
Rosin Core Solder

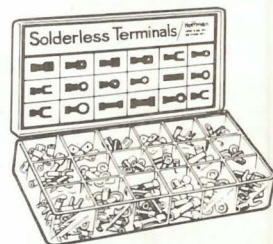


Part No.	Price
SN60 (1 lb.)	\$10.95

SOLDERLESS INSULATED TERMINALS & CONNECTORS

FOR ALL ELECTRICAL REPAIRS

Each Kit contains 175 insulated terminals and connectors and features 18 of the most popular styles and configurations (rings, spades, butt connectors, male and female disconnects), everything needed to perform professional wiring jobs. "See-through" hinged box makes storage and selection quick and easy. A must for anybody who wants professional wiring results.



PART NO.	DESCRIPTION	PRICE
A18K	Terminal/Connector Kit	\$7.95

TOOLS

PLIERS/CUTTERS



**Carbon Steel Chrome
Plated Long Nose
Plier with Cutter**

Plier-2 . . . (Size: 6") . . . \$4.59

**Long Carbon Steel
Chrome Plated Needle
Nose Plier
Non-Serrated**

Plier-3 . . . (Size: 6") . . . \$3.49

**Diagonal/Side
Cutter**
Made of hot drop forged carbon steel; guaranteed to C50 hardness. Chrome plated for rust resistance.

Cutter-5 . . (Size: 4 1/4") . . \$3.95

5-Piece Plier Set

5-piece hot drop forged precision electronic plier set.
Set includes long nose, flat nose, side cutter, end cutter and wire twister.
Vinyl pouch also included.

Plier-5 (Size: 5") \$14.95

SCISSORS



IRIS SCISSOR

Iris scissor used for intricate cutting (e.g., IC leads, tiny hair-thickness wires, etc.). 420 stainless steel

Scissor-1 (Curved) (Size: 4 1/2") . . . \$3.95



**Stainless Steel
General
Utility
Scissor**

Scissor-2 . . . (Size: 5 1/2") . . . \$3.49



**Nickel Chrome Plated
Electricians Scissor**
Micro adjustable screw for precision tension adjustment

Scissor-4 . . . (Size: 5") . . . \$6.95

Dumont-Style TWEEZERS Self-Locking



Non-Magnetic Stainless with Brushed Non-Glare Satin Finish
Tweezer-1 (Straight) (Size: 4 1/4") \$4.95
Tweezer-2 (Curved) (Size: 4 1/4") \$4.95

Ideal as a Heatsink!

Chrome Plated
Self-Locking Tweezers

Tweezer-3 (Straight) (Size: 4 3/4") \$2.49



HEMO-1

HEMO-4

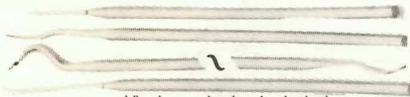
HEMOSTATS

**Two New
Hemo's**

All hemostats are made of 410 A.I.S.I. stainless and have 3 locking positions

HEMO-1 (5" Straight Tip) \$3.95
HEMO-4 (5" Curved Tip) \$4.25
HEMO-5 (6" Straight Tip) \$4.95
HEMO-2 (6" Curved Tip) \$5.25

PROBES



Vinyl pouch also included.

**4-Piece
Probe Set**

Size (Range): 5 1/2" to 6 1/2"

Probe-40 \$6.95

Handy electronic assembly and soldering aids. The probes are all stainless steel with the tips forged from 420 A.I.S.I. rated stainless. Includes the 4 probes shown and vinyl pouch.

MIRRORS



**Examination Mirror
With Stainless Steel Handle**

Mirror diameter: 3 1/4"

Mirror-1 . . . (Size: 7") . . . \$4.95

KNIVES

**ELECTRICIANS
KNIFE**

Last of the old fashioned, handmade quality. Hand rubbed rosewood handle with solid (not plated) brass trim. The Knife-70 has 2 stainless steel blades.



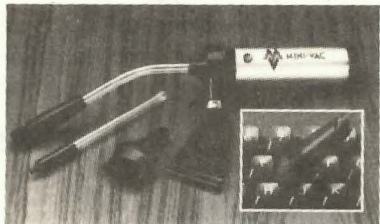
Knife-70 . . . (Size: 3 3/4") . . . \$5.99

**MINI-VAC
MINI-VAC
Vacuum/
Blower**

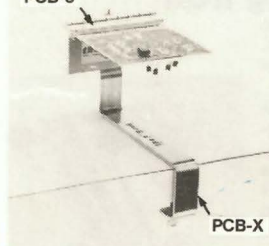
Remove minute dust & particles from your fine equipment. Over 100 uses: Computers, electronics, cameras, keyboards, etc.

• Vacuum/blower capability • Finest quality lens brush and all-purpose brush (2) • Interchangeable directional wands (2) • Operates on one 9V ALKALINE battery (not included) • Size (Main Body): 5 1/2" L x 1 1/4" dia.

MINI-VAC \$19.95



PCB-3



PCB-X

THE 3RD HAND

Lets you work with both hands. Sturdy aluminum construction.

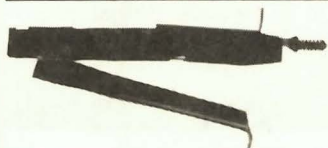
Clamp "The 3rd Hand" on edge of bench table or workboard. Insert circuit board, position components. Notice convenient working angle. Flip circuit board to flat position for soldering and clipping. Reverse procedure for double-sided boards.

PCB-3 . . . \$11.95

Extension to hold PCB-3 2" from bench and 6" from front edge.

PCB-X (Extension) \$4.95

NIBBLING TOOL



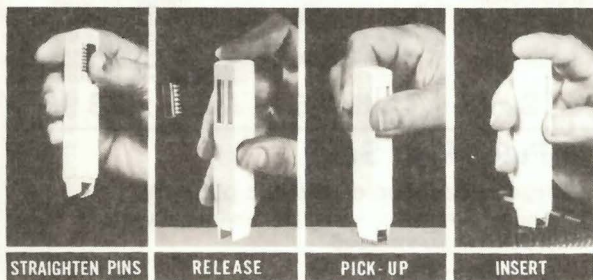
This Nibbling Tool is perfect for cutting, trimming, or notching sheet metal up to 18 gauge. It operates like a punch and die, and also works well on aluminum or plastic up to 1/16" thick. We feel that this tool can be a real time-saver for our customers when working on chassis, printed circuit boards and prototype models. Size: 6 1/2" L.

Part No.	Description	Price
NT-1	Nibbling Tool.	\$9.95
RP-1	Replacement Punch.	\$5.95



PRODUCTS

DIP/IC INSERTION TOOL



STRAIGHTEN PINS

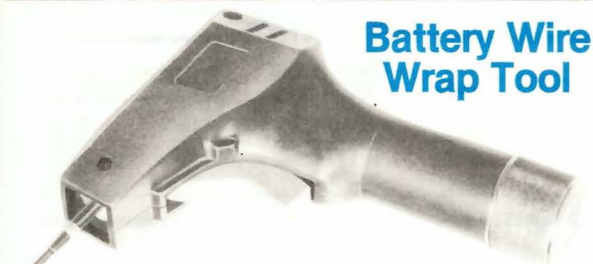
RELEASE

PICK-UP

INSERT

Inserts both 14 and 16 pin packages. Narrow profile permits work on closely-spaced items. Pin straightener built into handle.

Part No.	Function	Price
INS-1416	14-16 pin (pictured above)	\$ 5.19
MOS-1416	14-16 pin CMOS safe (pictured at right)	\$10.95
MOS-2428	24-28 pin CMOS safe (pictured at right)	\$10.95
MOS-40	36-40 pin CMOS safe (pictured at right)	\$12.69



Battery Wire Wrap Tool

Wraps 30AWG wire on standard DIP sockets (.025"). Complete with built-in bit and sleeve for "modified" style wrap. Positive indexing and anti-overwrapping. Weighs only 11 ozs. Uses 2 each "C" batteries (not included).

Part No.	Function	Price
BW630	30AWG (with Bit and Sleeve)	\$41.95
BT-30	30AWG Replacement Bit & Sleeve	\$ 5.95

Electric Desoldering Iron

• Self contained suction power and heating element • Economical • Lightweight 4 oz. (113 grams) • Compact size 10 1/4 inches (26cm) • Replacement nozzles available

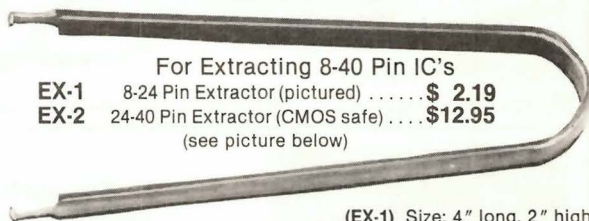
Revolutionary new electric desoldering iron combines the ease and portability of a hand-held, manual, desolder pump, with performance of an industrial desolder station. This unique AC powered compact tool features portable, one-hand desoldering eliminating the need for separate soldering iron and desolder pump. No shop air required. Essential for all tool kits, field service technicians, and repairmen, as well as production applications. Vacuum chamber is easily removed for cleaning or replacement. Tool is supplied with SAT-6-059 tip; diameter .059 inch (1.5mm).



Part No. SA-6	\$23.95
Part No. SAT-6-059	\$2.95
Part No. SAT-6-070	\$2.95

• Request NEW Product Flyers:

DIP/IC Extractor Tool

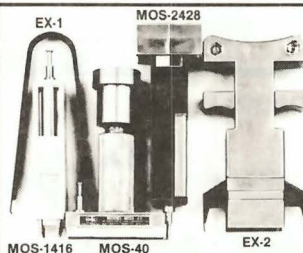


For Extracting 8-40 Pin IC's

EX-1	8-24 Pin Extractor (pictured)	\$ 2.19
EX-2	24-40 Pin Extractor (CMOS safe)	\$12.95

(see picture below)

(EX-1) Size: 4" long, 2" high

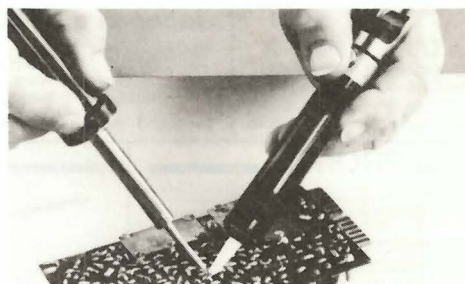


DIP/IC Inserter-Extractor Kit

Includes MOS-1416, MOS-40, MOS-2428, EX-1 and EX-2.

WK-7 \$43.95

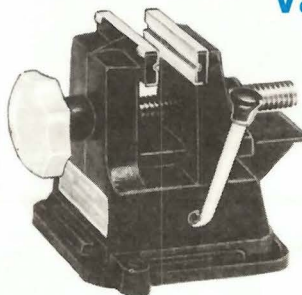
DESOLDER PUMP



- Low static all metal construction
- One hand operation — self-cleaning
- Suction precisely regulated to protect circuitry
- Easily disassembled for cleaning
- Teflon tip — compact size

DP-1X	Desolder Pump	\$12.95
DPT-1	Replacement Tips (2 tips)	\$ 2.95

Vacuum Vise



Vacuum-based light-duty vise for small components and assemblies. ABS construction. 1 1/2" jaws, 1 1/4" travel. Can be permanently installed. Weight: 6 oz. Size: 3"L x 3 1/2"W x 3"H

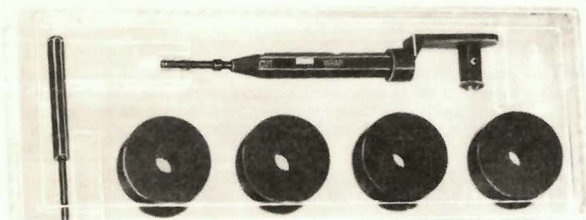
VV-1 \$4.95

• Winter • Spring • Summer



PRODUCTS

JUST WRAP™ Wire Wrapping Kit



Why cut? Why strip? Why slit? Why not...Just Wrap?

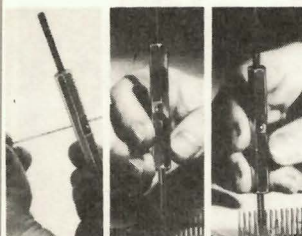
Daisy chain or point-to-point. No stripping or slitting required — just wrap. Built-in cut-off. Note: 30 AWG wire fits .025" square posts. The JWK-6 Kit includes Just Wrap Tool, 50 feet of blue, red, white and yellow 30 AWG Kynar wire and an unwrap tool.

Part No.	Description	Price
JWK-6	Wire Wrapping Kit.	\$34.95
JW-1-B	Wire Wrapping Tool — Blue.	\$19.95

REPLACEMENT WIRE (50 Feet)

R-JW-B	(Blue).	\$3.95
R-JW-W	(White).	\$3.95
R-JW-Y	(Yellow).	\$3.95
R-JW-R	(Red).	\$3.95

Strip-Wrap-Unwrap Tool



Use with 30 AWG wire on .025" square posts. No solder necessary.

WSU-30 \$8.95

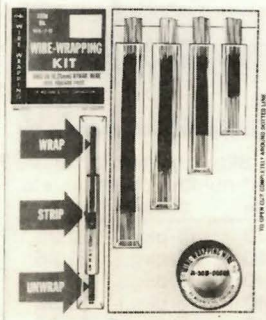
Modified Tool

WSU-30M wraps 1 to 2 turns of insulated portion of wire for more secure connections.

WSU-30M (Mod.) . . \$10.95

STRIP WRAP UNWRAP

Wire Wrapping Kit — WK-2W



Contains WSU-30 wrap tool, 50 feet of Kynar 30 AWG white wire, 50 pieces each pre-stripped wire in 1", 2", 3" and 4" lengths, stripped 1" both ends.

WK-2W. . . . \$16.95

JUST WRAP™ Unwrap Tool



JUW-1 Unwraps 30 AWG Wire \$5.49

CUT and STRIP DISPENSER

- Cuts and strips in one step.
- Strips 1" of insulation.
- Refillable
- Includes 50 feet of 30AWG Kynar wire-wrap wire



Part No.	Color	Price
WD-30-B	(Blue)	\$6.49
WD-30-Y	(Yellow)	\$6.49
WD-30-W	(White)	\$6.49
WD-30-R	(Red)	\$6.49

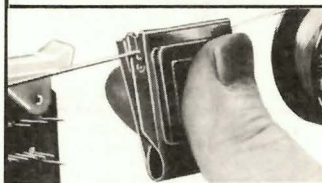
REPLACEMENT WIRE (50 Ft. Roll 30AWG)

R30-B	(Blue)	\$4.29
R30-Y	(Yellow)	\$4.29
R30-W	(White)	\$4.29
R30-R	(Red)	\$4.29

3-Color Cut and Strip Dispenser

Same as WD-30. Includes 50 feet each of red, white and blue 30AWG wire wrap wire all on one dispenser.

Part No.	Price
WD-30-TRI.	\$9.49
R-30-TRI (Replacement Roll).	\$7.95



"Clip and Strip" Tool

Strips 1" of insulation from 30AWG wire. Insert wire, squeeze tool and pull wire through slot. Handy pocket eye. 1 1/4" x 1" x 5/8".

CAS-130 \$2.95

Wire Wrap Kit

- Battery Tool BW-630 (C-size batteries not incl.)
- Hobby Wrap Tool WSU-30M
- PC Edge Connector CON-1
- DIP/IC Extractor Tool EX-1
- DIP/IC Insertion Tool INS-1416
- PC Card Guides & Brackets TRS-2
- Mini-Shear with Safety Clip MS-20
- 14, 16, 24, and 40 Pin DIP Sockets
- Terminals WWT-1
- Tri-color Wire Dispenser WD-30-TRI
- Hobby Board H-PCB-1



WK-5. \$84.95



NEW!

Electric Mini-Drill/Grinder Kit

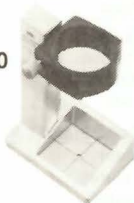
This precision electric mini-drill/grinder is ideal for prototype work; P.C. board revision and redesign, solder removal; lead hole cleaning; grinding and polishing. Its compact size (4 7/8" [12.4cm] minus the drill bit) allows the use of the drill in confined areas. The durable (20,000 RPM) tool will accommodate shank sizes of up to .126" (3.2mm). The kit includes: • EDG-01 Electric Mini-Drill/Grinder • 1 Mandrel • .074" (1.8mm) Drill • 3 Twist Drills: .079" (2mm); .059" (1.5mm); .039" (1mm) • 2 Stepped Shank Drills: .047" (1.9mm); .02" (6.51mm) • 2 Engraving Burrs • 3 Mounted Abrasive Stones • 1 Mounted Polishing Felt • 1 Mounted Nylon Brush • 2 Cut-off Wheels • 1 Finger Guard • 6 Collets

FLEXIBLE SHAFT — The 23.5" (60cm) flexible shaft easily attaches to the Precision Mini-Drill/Grinder offering extended range and delicate touch for precise electronic or industrial applications. Can be used with all of the accessories for cutting, polishing, grinding, removing burrs, drilling or engraving. • Flexible shaft • 23.5" (60cm) extension • 3 Collets

PART NO.	DESCRIPTION	PRICE
EDG-Special	Includes EDG-02 (Electric Mini-Drill Grinder Kit) and EDG-03 (110VAC @ 12V Transformer - necessary for operation).....	\$38.95
EDG-04	Flexible Shaft.....	\$ 6.95
EDG-05	Drill Stand (5"L x 3 1/4"W x 9"H) (Magnifier not included). . .	\$ 8.49



STD-60



Portable Mini-Drill

This lightweight, versatile portable hand drill is suitable for most light drilling applications and is especially appropriate for circuit board drilling. The PD-3 runs at 2,500 RPM on 4 "AA" batteries (not included). It will accept drills from .019" to .060" diameter. Comes supplied with one .039" diameter drill bit. Optional stand holds drill firm for precision drilling.

PART NO.	DESCRIPTION	PRICE
PD-3	Portable Mini-Drill.	\$29.95
RDB-4	Replacement Bits (2 ea. .039" and 2 ea. .060"). . .	\$ 6.95
STD-60	Stand for PD-3.	\$16.95



Universal Test Lead Kit

This universal test lead kit includes a pair of safety-designed test leads and an assortment of interchangeable tips for most measurement and testing applications. Plugs into standard 0.166" (4.22 mm) diameter banana jacks. Snap fit assembly. No soldering required.

Kit contains:

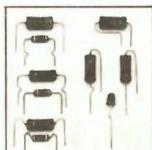
- Pair of 48" (121.9 cm) test leads, banana plug on one end and std. probe tip on the other end
- 2 standard micro hooks
- 2 spade lug adapters
- 2 replacement probe tips
- Reusable vinyl carrying pouch

TLK-8. \$7.95

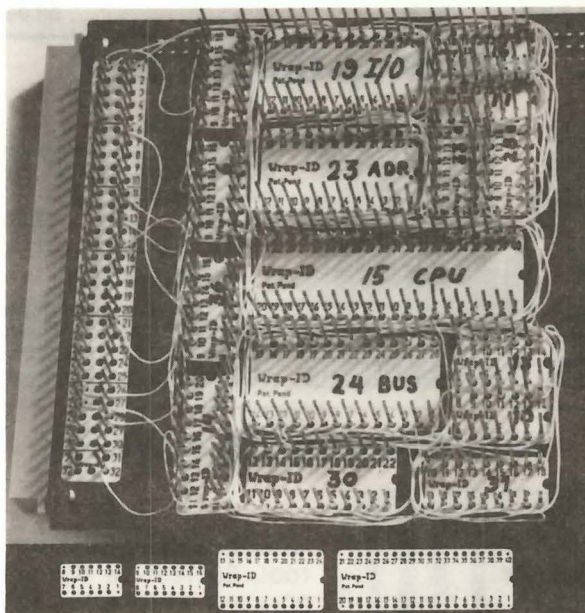
Lead Bender and Crimper

The new LB-100 handles all common axial components including resistors, diodes and capacitors, and can be used on many radial and "TO" packages as well. This device is easily adjusted for both lead diameter and crimp size. It provides all the versatility of expensive automatic machines at a fraction of the price. May be hand-held or mounted in a vise. Ideal for prototype, laboratory, and light production applications.

Part No. LB-100 \$15.95 each



SOCKET-WRAP I.D.

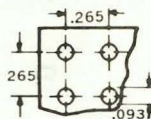


Quick identification of pin numbers. Slips onto socket before wrapping. Easily write location, part number, function, etc.

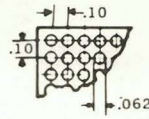
Part No.	Package	Price	Part No.	Package	Price
8-ID	(10/pkg.)	\$1.95	22-ID	(5/pkg.)	\$1.95
14-ID	(10/pkg.)	\$1.95	24-ID	(5/pkg.)	\$1.95
16-ID	(10/pkg.)	\$1.95	28-ID	(5/pkg.)	\$1.95
18-ID	(5/pkg.)	\$1.95	40-ID	(5/pkg.)	\$1.95
20-ID	(5/pkg.)	\$1.95	96-ID	(5/pkg.)	\$1.95

PREPUNCHED INSULATING BOARDS

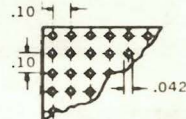
Vectorlord®



A Pattern



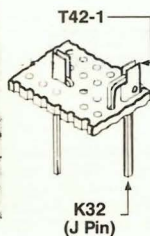
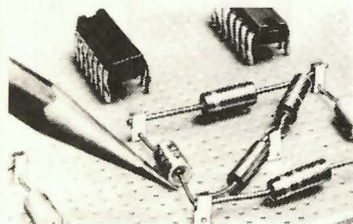
H Pattern



P Pattern

MATERIAL	HOLE PATTERN	PART NO.	HOLE SIZE (IN.)	LONG (IN.)	WIDE (IN.)	THICK (IN.)	PRICE 1-9	PRICE 10+
PHENOLIC	A	64AA18	.093	17.0	4.8	3/32	\$ 4.39	\$ 4.15
	P	64P44XXXP	.042	4.5	6.5	1/16	\$ 2.15	\$ 2.05
	P	169P44XXXP	.042	4.5	17.0	1/16	\$ 5.09	\$ 4.75
EPOXY GLASS	H	85H48WE	.062	8.5	4.8	1/16	\$ 3.35	\$ 3.15
	P	64P44WE	.042	4.5	6.5	1/16	\$ 2.79	\$ 2.59
	P	84P44WE	.042	4.5	8.5	1/16	\$ 3.45	\$ 3.25
	P	169P44WE	.042	4.5	17.0	1/16	\$ 6.79	\$ 6.39
	P	169P84WE	.042	8.5	17.0	1/16	\$12.95	\$12.39
EPOXY GLASS Copper Clad — One Side Only	P	169P44WEC1	.042	4.5	17.0	1/16	\$ 9.19	\$ 8.59

VECTOR PUSH-IN TERMINALS



Part No.	Tab Style	Material	Plating	Minimum 50 pcs.	100 pcs.	1000 pcs.
T28	.437" long w/hole-for .062" board	Phosphor Bronze	Tin	\$2.25 lot	\$2.89 C	\$12.95 M
T42-1	.360" long w/hole-for .042" board	Copper Alloy	Tin	\$2.19 lot	\$2.85 C	\$12.75 M
K32 J Pin	.650" long accessory to T42-1 or as wire wrap or patch cord post	Copper Alloy	Tin	\$4.89 lot	\$6.29 C	\$27.95 M

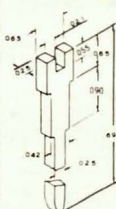
VECTOR WIRING TERMINALS

WIRE WRAPPABLE TERMINALS FOR .042" DIAMETER HOLES

Series	Part No.		Material	Post Size	Height Above 1/16" Board	Length Below 1/16" Board	Insertion Tool Required	Price Per 50 pcs.		Price Per 100 pcs.		Price Per 1000 pcs.	
	Gold	Tin						Gold	Tin	Gold	Tin	Gold	Tin
T44	T44-1	T44	Copper Alloy	.025" sq.	.065	.530	A13	3.15	1.95	4.00	2.49	29.00	18.00
T46	T46-1	T46	Copper Alloy	.028" sq.	.400	.530	P133A	7.80	4.49	10.00	5.75	71.00	41.00
T49	T49A	T49	Copper Alloy	.025" sq.	.200	.560	P156	8.60	3.65	11.00	4.65	79.00	33.00
T49-1	T49A-1	T49-1	Copper Alloy	.025" sq.	.200	.388	P156	11.00	5.95	14.00	7.60	100.00	54.00

VECTOR TERMINAL SPECIFICATIONS

VECTOR INSERTION TOOLS



T-44 MINIWRAP

Terminal pushes in and locks in .042" diameter hole. Has .021" component slot and .025" square tail for wrapped wire connections. Overall length is .690". The T-44 Series is copper alloy, tin or gold plated.



T-46

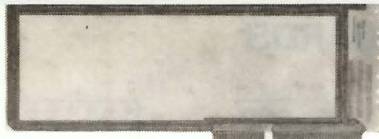
These double ended wrap-posts are inserted into .042" diameter circuit board holes such as "P" pattern Micro-Vectorbord with P133A insertion tool. The pins extend .040" above the board and .053" below 1/16" thick board.



T-49 KLIPWRAP

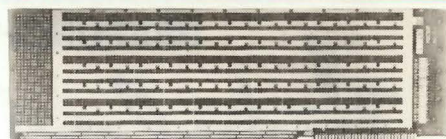
Pushes into .042" diameter hole. Upper end holds leads .010" to .040" in clip action until soldered. T-49 is copper alloy, tin or gold plated.

Part No.	Terminal	Price
P91A	T28.....	\$4.95
P149A	T42-1.....	\$7.95
A13	T44/T44-1.....	\$7.95
P133A	T46/T46-1.....	\$5.49
P156	T49 Series.....	\$5.69



IBM AT (4617-1)

IBM AT, PC, and XT Expansion Boards



IBM PC, XT (4613-2)

Common Features: • Marked edge contact identification • Gold-plated edge contacts on 0.1" centers • Power and ground buses terminate to connectors • Pads on board and bracket accepts DB9-, 15-, 25- or 37-pin I/O connector • Holes are .042" diameter on 0.1" grid • Universal mounting bracket and card guide included

Features Unique to IBM AT only: • Plugs into any IBM AT slot with dual connectors • Pads for mounting a dual row 0.1" spaced header

3-HOLE SOLDER PADS AND BUSES

- Easy interconnections to 3-hole pads with wire and component leads
- Interposed power and ground buses on each side
- Buses are back to back and through connected

Part No.	Price
4613-1 (PC, XT).....	\$41.95
4617 (AT).....	\$43.95

BUSES ONLY

- Bare center area for unlimited component placement
- Power and ground buses on each side around edges
- One extra bus line along lower edge on each side for auxiliary power — (4613-1 only)

Part No.	Price
4613-1 (PC, XT).....	\$28.95
4617-1 (AT).....	\$29.95

VOLTAGE PLANES

- Full power and ground planes • Plated through holes
- Accepts .3" and .6" width DIP IC device

Part No. 4613-2 (PC, XT)..... \$39.95

PAD-PER-HOLE

- Plated through holes • Pads on 0.1" grid for unlimited component placement
- Power and ground buses on each side around edges

Part No.	Price
4613-3 (PC, XT).....	\$40.95
4617-3 (AT).....	\$42.95

CARD EXTENDERS

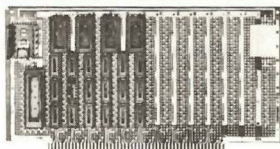
- 31/62 contacts on .100" centers • Extender size: 3.18"W x 5.70"H

Part No. 3690-22 (PC, XT)..... \$29.95

- 18/36 and 31/62 contacts on .100" centers • Extender size: 6.70"W x 5.60"H

Part No. 3690-26 (AT)..... \$49.95

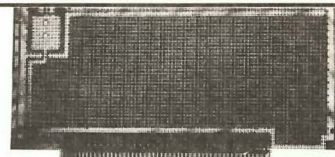
\$100 (IEEE696) PLUGBOARD NO. 8800V



VOLTAGE PLANES — The board can hold 2 40-pin DIPs, 8 24-pin DIPs and 36 14- or 16-pin DIPs. Power is distributed to each DIP location by heavy copper-tinned power and ground planes on opposite board sides for low impedance. Has prewired regulator circuit and 2 heat sink provisions. Use R681-1 or R681-2 connector. Includes heat sinks, mounting hardware, layout paper for each side, and instructions. For wire-wrapping.

Part No. 8800V..... \$24.49

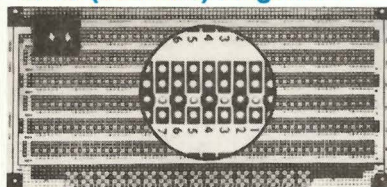
\$100 (IEEE696) PLUGBOARD NO. 8801



PAD-PER-HOLE AND BUSES — Great flexibility — ideal for mounting wrap post tail sockets or components by tack soldering. Mounts 80 16-pin DIPs. Individual tinned square pads surround holes. Heavy tinned power and ground buses are provided on board periphery, and 1 provided regulator position has prewired power and ground connections. Use R681-1 or R681-2 connector. Includes heat sink and mounting hardware. For soldering or wire-wrapping.

Part No. 8801..... \$26.49

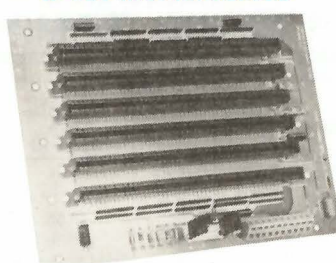
\$100 (IEEE696) Plugboards



Mount DIP devices anywhere on plugboards in pre-punched 0.042" diameter holes. 50/100 contacts on .125" centers. Heavy tinned buses back-to-back provide good distributed capacitance. Boards measure 10"W x 5.313"H. Furnished with 1 heat sink, 2 regulator positions — one being pre-wired. Install wrap post sockets and wire.

Part No.	Description	Price
8804	Voltage Planes.....	\$26.95
8801-1	Contacts only.....	\$16.95
8801-6	Pad-Per-Hole & Buses.....	\$31.95

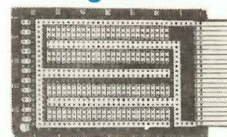
S-100 Motherboards



High speed; up to 10MHz, shielded, two-sided plated through holes, FR4 epoxy glass; 0.00005" gold plated connector contacts; liberal decoupling capacitors, "reset" switch wiring pads. Fully assembled.

Part No.	Description	Price
8803-6	6-position.....	\$149.95
8803-18	18-position.....	\$249.95

Commodore Compatible Plugboard



Fully plug compatible with Commodore 64. The boards contain 22/44 contacts on .10" centers. Etched contact plating is .000010" gold plated over .000050" nickel. The boards measure 4.50"W x 2.73"H x .0625"D. Material composition is epoxy glass. The model 3795 features contacts only for unlimited component placement and mounts 15 16-pin DIP IC devices. The model 3795-1 features interposed power and ground buses on wiring side and mounts 4 16-pin DIPs.

Part No.	Description	Price
3795	Contacts only.....	\$ 9.95
3795-1	3-Hole Solder Pads and Buses.....	\$13.49
122/44	Mating Connector for 3795/-1.....	\$ 2.49

Unless otherwise noted, S-100 boards are 10.0"W (254mm) x 5.3"H (135mm) and have 50/100 nickel plated gold flashed contacts spaced 0.125" (3.2mm) centers and 0.042" (1.1mm) diameter holes on 0.1" (2.5mm) grid for DIP mounting.

MATING CONNECTOR • 50/100 contacts • Wire-Wrap • .125" spacing • 3-level
Part No. R681-1..... \$5.95

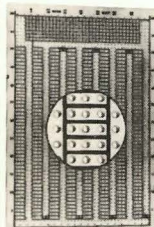
MATING CONNECTOR • 50/100 contacts • Wire-Wrap • .125" spacing • 1-level
Part No. R681-2..... \$4.95

GENERAL PURPOSE AND APPLE™ CIRCUIT BOARDS

PLUGBOARDS FOR INTERFACE, MEMORY EXPANSION, EXPERIMENTATION

CIRCBORDS®

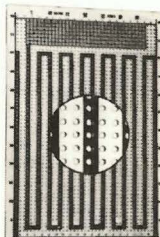
• Most popular plugboard patterns without the expense of edge connectors • Wire by wrapping, soldering or solder-thru pencil wiring • Tinned circuit pattern one side, other side bare (8001, 8002 and 8003 only) • Size: 4.5" x 6.5" x .062" epoxy glass .042" diameter holes on .1" grid • Universal I/O area for mounting any type board connector.



**CIRCBORD
No. 8001**

- Convenient power and ground buses
- 3-hole pads 2 buses
- Mounts 20 each 16-pin DIPs
- Quick solder mounting
- .042" dia. holes on .1" grid

Part No. 8001. \$11.95



**CIRCBORD
No. 8002**

- Mounts .3", .6", .9" wide IC's
- Convenient power and ground buses
- 2 buses
- Best for wire wrapping
- Mounts 35 16-pin DIPs

Part No. 8002. \$11.95



**CIRCBORD
No. 8003**

- Mounts any DIP or discrete components
- Pad-per-hole
- Quick solder mounting
- Mounts 60 16-pin DIPs or 48 16-pin DIPs (spaced)

Part No. 8003. \$11.95

CIRCBORD No. 8006

- Mounts up to 154 16-pin DIPs
- Etched pattern on both sides with tinned plated-thru .043" dia. holes on .1" centers with .080" diameter tinned pads around holes
- Components may be tack soldered in place and connected using either solder or wire wrapping techniques
- Size: 5" x 13.25"



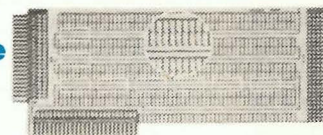
Part No. 8006. \$21.95

CIRCBORD No. 8007

- Patterned on both sides with 8003 (above) pattern on one side, clearance-hole ground plane on the other side.
- Ideal for high frequency or analog circuit construction
- Size: 4.5" x 6.5" (per general description above).

Part No. 8007. \$14.95

APPLE II, II+ & IIe PLUGBOARDS



A peripheral interface board, plug compatible with Apple II, II+ & IIe, provides many features not available on the manufacturer's own boards. For I/O peripheral interfacing, experiments, or memory expansion. Mounts 22 16-pin DIPs. .042" diameter holes on .1" grid. Edge contacts: one 50-pin on .1" centers for chassis connection; one 40-pin on .1" centers for ribbon cable connection. Size: 7.7" x 3.06" x 1/16". For soldering or wire-wrapping.

Part No.	Description	Price
4609	Peripheral Interface Board.	\$24.95

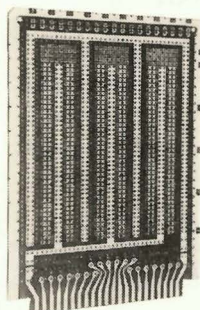
Apple Interface Board

• Similar to the 4609 except no bus circuitry • Contacts only • Permits maximum freedom of component placement.

4609-1	Peripheral Interface Board.	\$20.95
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3690-24	Extender Board for Apple Plugboard.	\$35.95
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DIP Plugboards



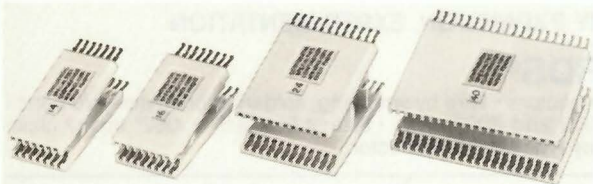
Plugboard 3677-2 measures 4.5" x 6.5" and features 22/44 contacts on .156" centers. All etched circuitry above contact area is tinned for easy soldering. Back-to-back contacts terminate in independent hole pads. Flame retardant epoxy glass composite copper cladding 2 oz. 1 or 2 sides. Solder coated except contacts.

Plugboard 3662 — Same as 3677-2 except without circuitry; contacts only.

Part No.	Description	Price
3677-2	DIP Plugboard.	\$13.95
3662	DIP Plugboard (contacts only).	\$11.95
22/44SE	Mating Connector for 3677-2/3662. . .	\$ 1.49



Proto-Clip® IC Test Clips



Proto-Clip® IC Test Clips are designed to facilitate temporary connections to dual in-line packaged components, including DIP ICs, networks, and relays. The special molded web hinge configuration provides positive contact even after thousands of uses.

Part No.	Description	Price
PC-14	14 Pin Proto Clip.	\$ 4.49
PC-16	16 Pin Proto Clip.	\$ 4.95
PC-24	24 Pin Proto Clip.	\$ 7.95
PC-40	40 Pin Proto Clip.	\$12.95

Solderless Breadboard Sockets



QT-59S



QT-35S



QT-59B



QT-35B



QT-47S



QT-18S



QT-47B

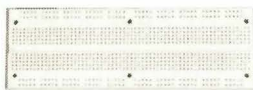
• Lifetime Unconditional Guarantee!

Quick Test Solderless Socket Strips and Bus Strips provide expandable, reusable breadboarding areas for the designer. Lifetime unconditional guarantee.

Part No.	Length	Hole-to-Hole	Terminals	Unit Price
QT-59S	6.5"	6.2"	118	\$11.95
QT-59B	6.5"	6.2"	20	\$ 3.49
QT-47S	5.3"	5.0"	94	\$ 9.95
QT-47B	5.3"	5.0"	16	\$ 2.79
QT-35S	4.1"	3.8"	70	\$ 8.49
QT-35B	4.1"	3.8"	12	\$ 2.39
QT-18S	2.4"	2.1"	36	\$ 5.95

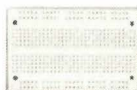
Universal Breadboarding Sockets

UBS-100



6.5"L x 2.2"W x .33"H

UBS-500



3.4"L x 2.2"W x .33"H

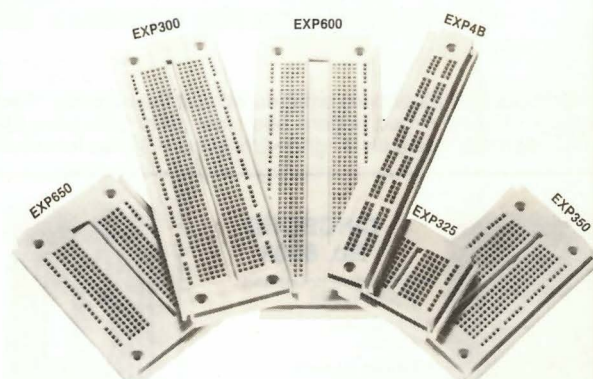
• Instant Circuit Construction • Lifetime Unconditional Guarantee!

UBS-100 — Contains 64 pairs of 5 common spring contacts for principle circuit construction and 8 bus strips of 25 common contacts for power, ground, and input/output connection for a total of 840 contact points.

UBS-500 — Has all the features of the UBS-100 in a smaller size. Contains 33 pairs of 5 common contact points, totaling 430 contact points.

Part No.	Price
UBS-100.	\$16.95
UBS-500.	\$ 8.95

Solderless Breadboard Modules



Experimenter Solderless Breadboards combine the advantages of Quick Test Socket and Bus Strip solderless contact arrangements into single, small, modular breadboards. Features molded interlocking edge rails on all four sides.

Part No.	Length	Width	Center Channel	5 Tie Point Terminals	Bus Strips	Price
EXP4B	6.0"	1.0"	N/A	N/A	4(160)	\$ 3.79
EXP300	6.0"	2.1"	.3"	94(470)	2(80)	\$11.49
EXP325	1.8"	2.1"	.3"	22(110)	2(20)	\$ 3.79
EXP350	3.6"	2.1"	.3"	46(230)	2(40)	\$ 6.49
EXP600	6.0"	2.4"	.6"	94(470)	2(80)	\$13.95
EXP650	3.6"	2.4"	.6"	46(230)	2(40)	\$ 8.49

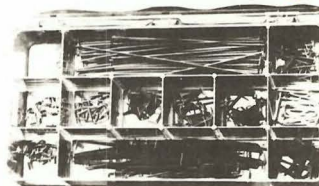
EXP300PC Experimenter Matchboard



Matchboard prepared PCBs duplicate hole-and-connection pattern in drilled foil. The EXP-300PC can be used for hard-wired version of circuits. Ideal for small production runs.

Part No. EXP-300PC 1 Matchboard PCB. . . \$2.59

Wire Jumper Kit



- Pre-Cut
 - Pre-Stripped
 - Pre-Formed
- Quick and Simple!**

Clear Plastic Case with Cover — 8 1/4"L x 4 1/2"H x 1 5/16"D

Use with QT Sockets, Bus Strips, EXP Board, Proto Boards, etc. Pre-cut, pre-stripped 22 AWG color-coded lengths. Includes 50 each of 0.2" length and 25 each of 12 lengths ranging from 0.3" to 5.0". Equivalent to AP Products Kit Part No. 923351.

Part No. WK-1. \$12.95

Wire Jumper Assortment Without Case

350 assorted wire jumpers, same description as WK-1, without case.

WJ-350 \$4.95



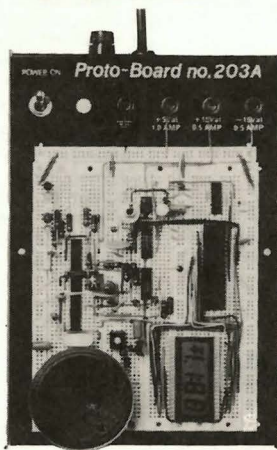
PROTO-BOARD DESCRIPTION

GLOBAL PROTO-BOARDS make designing, developing and testing electronic circuits easier and faster. Gone are the long hours of tedious soldering and resoldering. Components and wire leads can be inserted and removed without damage to either the component or the Proto-Board. Circuit changes can be made in minutes by simply moving components from one place to another.

Model PB-203 Includes 5VDC, 1 Amp power supply, available at binding posts; two binding posts (V1, V2) remain uncommitted. Recommended for TTL and other 5 Volt logic designs.

Part No. **PB203 (assembled)** **\$144.95** Price

PROTO-BOARDS



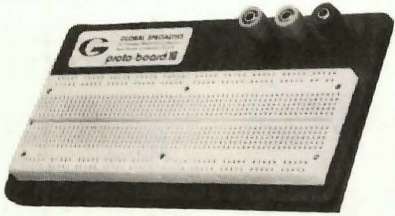
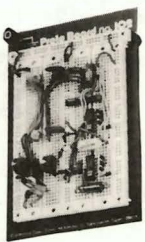



Model PB-203A Includes 5VDC, 1 Amp power supply. Also includes separate +5.5 to 18VDC and -5.5 to 18VDC power supplies, each capable of 500mA @ 15VDC. Power supplies are factory preset to ± 15 VDC. (Voltages independently adjustable with internal screwdriver adjustments.)

Part No. **PB203A (assembled)** **\$169.95** Price

Model PB-203AK is identical to PB-203A, but in kit form. Complete with comprehensive 30-page construction manual.

Part No. **PB-203AK (unassembled kit)** . . . **\$144.95** Price

All 203-Series powered Proto-Board breadboards feature fuse protection, pushbutton AC power switching and a built-in pilot light, designed for operation at 105-135VAC, 57-63Hz.

PB-10	PB-102	PB-103	PB-104	PB-105
				
The NEW PB-10 Replaces the PB-6, PB-100 and PB-101.				
\$18.95	\$36.95	\$59.95	\$79.95	\$109.95

Part No.	Sockets	Bus Strips	IC Capac. (14-pin)	Terms.	Tie Points	Binding Posts	Back-plate	Length	Width	Height	Powered	Weight	Shipped	PRICE
PB-10	UBS-100	---	8	180	900	3	Plastic	7.0" 178mm	4.0" 102mm	1.4" 36mm	No	6.5 oz. 185 gm	Assbl'd.	\$ 18.95
PB-102	2/QT47S	1/QT35B 3/QT47B	12	248	1240	1	Alum.	7.4" 187mm	4.5" 114mm	1.4" 36mm	No	10.0 oz. 284 gm	Assbl'd.	\$ 36.95
PB-103	3/QT59S	1/QT47B 4/QT59B	24	450	2250	4	Alum.	9.0" 229mm	6.0" 152mm	1.4" 36mm	No	21.0 oz. 595 gm	Assbl'd.	\$ 59.95
PB-104	4/QT59S	7/QT59B	32	612	3060	4	Alum.	9.8" 249mm	8.0" 203mm	1.4" 36mm	No	29.0 oz. 822 gm	Assbl'd.	\$ 79.95
PB-105	6/QT59S	4/QT47B 7/QT59B	48	912	4560	5	Alum.	9.2" 234mm	11.4" 290mm	1.4" 36mm	No	29.0 oz. 822 gm	Assbl'd.	\$109.95
PB-203	3/QT59S	4/QT59B 1/QT47B	24	450	2250	4	Alum.	9.8" 248mm	6.6" 168mm	3.3" 83mm	Yes	5 lbs. 2.3 kg	Assbl'd.	\$144.95
PB-203A	3/QT59S	4/QT59B 1/QT47B	24	450	2250	4	Alum.	9.8" 248mm	6.6" 168mm	3.3" 83mm	Yes	5.5 lbs. 2.5 kg	Assbl'd.	\$169.95
PB-203AK	3/QT59S	4/QT59B 1/QT47B	24	450	2250	4	Alum.	9.8" 248mm	6.6" 168mm	3.3" 83mm	Yes	5.5 lbs. 2.5 kg	Kit	\$144.95



Logic Probes



LP-1
Logic Probe

- Use to 50 nanoseconds, 10MHz
- Circuit powered and portable
- Compatible with most logic families

• Instant readings of logic levels for DTL, TTL and CMOS • **Input impedance:** 0.12 megOhm • **Minimum Detectable Pulse:** 50 nsec. • **Maximum Input Signal Frequency:** 10 MHz • **Pulse Detector (LED):** High speed train or single event • **Pulse Memory:** Pulse or level transition detected and stored • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** Threshold Select and Pulse Memory • **Display:** Discrete High, Low, Pulse LEDs

Part No. LP-1 Logic Probe (Assembled) \$19.95

- High speed — use to 6 nanoseconds, 70MHz
- Pulse memory stores pulse events

• Instant readings of logic levels for DTL, TTL and CMOS • **Input impedance:** 1.2 megOhm • **Minimum Detectable Pulse:** 6 nsec. • **Maximum Input Signal Frequency:** 70 MHz • **Pulse Detector (LED):** High speed train or single event • **Pulse Memory:** Pulse or level transition detected and stored • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** Threshold Select and Pulse Memory • **Display:** Discrete High, Low, Pulse LEDs

Part No. LP-3 Logic Probe (Assembled) \$62.95

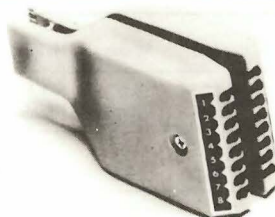
- Inexpensive, easy to assemble kit
- HI, LO, PULSE indicators
- No operating controls
- Universal logic thresholds 30%, 70% of Vcc

• HI, Lo, pulse indicators — Universal logic threshold • **Input impedance:** 0.3 megOhm • **Minimum Detectable Pulse:** 300 nsec. • **Maximum Input Signal Frequency:** 1.5 MHz • **Pulse Detector (LED):** High speed train • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** None • **Display:** Discrete High, Low, Pulse LEDs

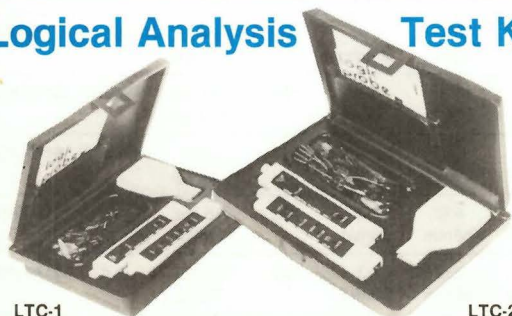
Part No. LPK-1 Logic Probe Kit \$25.95

LM-1

16-Channel Logic Monitor



Logical Analysis Test Kits



LTC-1

LTC-2

Digital Pulsers



DP-1
Digital Pulser

- Circuit powered
- Digital signal injector
- Short circuit protected
- Handheld pulse generator
- Single pulse or 100 pps train
- Compatible with most logic families
- Senses state of node, presets pulse polarity

Input: Probe tip senses logic state of node, determined at 40% of Vcc; protected to ± 50 VDC (DPK-1 not applicable). Impedance, minimum of 20 megOhms.

Output: DP-1, logic state of node sensed at probe tip by input circuit determines whether output pulse will source or sink current, low node is automatically pulsed to high (sourcing), high node to low (sinking); DPK-1, positive output pulse followed 30 msec later by a negative output pulse; DP-1/DPK-1, output is high impedance when not pulsing, can pulse into short circuit continuously without damage.

Pulse Width: DP-1 — TTL 1.5 μ sec \pm 30%; CMOS 10 μ sec \pm 30%; DPK-1 — TTL 1.5 μ sec \pm 30%; CMOS 3 μ sec \pm 30%.

Rise Time: 100 nsec.

Fall Time: TTL, less than 500 nsec at one TTL load; CMOS, less than 8 μ sec, at 0.1 megOhm load.

DP-1 comes complete with instruction manual, LDA-5 ground lead, LDA-5 power lead, and LDA-1 probe tip.

Part No. DP-1 Digital Pulser (Assembled) . . . \$62.49

DPK-1 Kit comes complete with all parts, wire, PCB, and construction manual. (DP-1 in kit form)

Part No. DPK-1 Digital Pulser Kit. \$31.95

SHORTSQUEEK



Model SQ-1 is a special type of ohmmeter that responds to very low values, & very small changes, of resistance (via an audio tone). Ideal for locating "short circuits". Also used to test ground loops.

Specs: Power: 6-20VDC, 50mA filtered • Tone shift: 1200-4000Hz, typ. • Range: 1.0-0.01 ohm typ.

Portable and Easy To Use!

SQ-1. \$84.95

Monitors to 16-pin DIP. 16 discrete LED display. Clips to 16 pin DIPs. **Impedance:** 0.1 Meg Ohm. Threshold voltage reference determines turn-on point for each of 16 LED indicators. Threshold voltage corresponds to DTL, TTL and other logic families whose logic one to logic zero differentials are 5-7 volts. **Threshold:** 2.0 ± 0.2 VDC. Single mode, single logic threshold. Operating power from highest and lowest voltages appearing at its sixteen inputs, is entirely circuit-powered. **Power derived from circuit under test:** 4VDC min. 15VDC max. across any two inputs. **Max. current drain:** 200mA @ 10VDC. **Size:** 4.0"L x 2.0"W x 1.5"D. **Weight:** 3 ozs.

LM-1 16-Channel Logic Monitor \$79.95

LTC-1 Includes: LP-1 Logic Probe, one 3" (76mm) ground lead with alligator clip.

LTC-2 Includes: LP-3 Logic Probe, two 3" (76mm) ground leads with alligator clips.

Both Models Include: LM-1 Logic Monitor; DP-1 Digital Pulser; two 1 1/2" (38mm) probe tips; two 2 1/2" (64mm) probe tips; one 3" (76mm) "easy-clip" adapter for use in place of probe tip; one probe tip to "easy-clip" converter; one probe tip to banana plug converter; two 36" (914mm) power/ground leads with alligator clips; complete manuals for each instrument; custom-molded cases. Dimensions: 9.1"L x 7.5"W x 2.25"D (231mm x 191mm x 57mm). Weight: 23 oz. (652 gm).

Part No.	Description	Price
LTC-1	Standard to 10MHz.	\$194.95
LTC-2	High Speed to 70MHz.	\$239.95



INSTRUMENTS



Digital Capacitance Meter

The Model 3000 offers 3½-digit resolution, accuracy to 0.2% of reading, capacitance measurements from 1pF to 2000µF, and switch selection of capacitance range. The 0.5" high numeric LCD display has annunciators to indicate low battery and excessive compensation of stray capacitance. Front panel Zero ADJUST control permits nulling of stray and incidental capacitance, as might be associated with a cable lead to a test fixture. Also included is a tilt stand for positioning of the unit, test leads and 9V battery. Size: 3½"W x 1½"D x 6¾"H.

Model 3000..... \$139.95

Function Generator

The Model 2001 Sweepable Function Generator is designed for a wide variety of uses such as audio amplifier and speaker evaluations, ultrasonics transducer simulations, servo systems excitation and evaluation, SLF radio and receiver alignment, digital systems and logic testing. Frequency is continuously variable from 1Hz to 100kHz with a 10:1 calibrated vernier in five decade ranges or up to 100:1 with a ±1.0V sweep input. Now with "BNC" type connectors and wall plug-in power supply. Size: 10"L x 7"W x 3"H. Weight: 2.2 lbs.

Model 2001..... \$169.95

Pulse Generator

The Model 4001 Ultravariabale Pulse Generator™ is uniquely designed to permit precise tailoring of pulse repetition rates and duty cycles over a wide range through the independent setting of pulse spacing and pulse width. Both pulse width and pulse spacing are continuously variable over seven decade ranges from 100ns to 1s, with outputs from 0.5Hz to 5.0MHz. Its uncomplicated, rugged design and high quality components help to insure long and dependable service. Size: 10"L x 7"W x 3"H. Weight: 2.2 lbs.

Model 4001..... \$259.95



Pen Type Digital Multimeter

- Extended Ranges: DC 200mV, 200Ω and 20MΩ • Ranges: DC volts 0.1mV to 500V — AC volts 1mV to 500V • Auto polarity and decimal • Large 3½-digit LCD display • Electronic data hold switch • Auto-ranging for easy, quick reading • Includes: 2 probe tips, alligator clip, soft case, batteries and manual

Model 3100..... \$54.95



Handheld Digital Multimeter

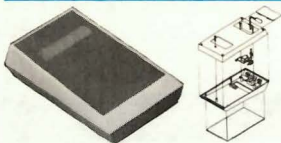
**6 Function • 18 Range
Auto 3½-Digit LCD**

- Ranges: DC volts 0.1mV to 1000V — AC volts 1mV to 750V
- Resistance: 0.1Ω to 20MΩ • Auto ranging • Fast continuity beeper • Low battery indication • Over range indication
- Measuring mode: Integration mode • Size: 3"W x 1¼"D x 6¼"H

ME550..... \$49.95



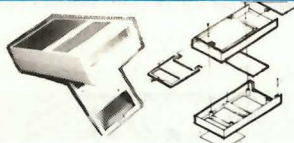
INSTRUMENT CASES AND HARDWARE



The Handheld Case

Includes grey plastic case shell halves; separate battery compartment cover; subminiature phone jack with battery snap connected; hexagonal-barrel screw-in antenna connector; red transparent plastic self-adhesive front panel; mounting screws. Size: 6"L x 3"W x 1.5"H (152 x 76 x 38mm). Weight: 4.5 oz. (113 gm). Usable printed circuit board area: 4" x 2.9" (not including battery compartment).

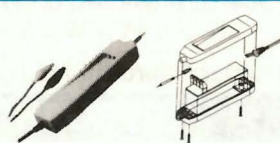
CTH-1..... \$7.95



The Handheld II Case

Includes hardware, predrilled top plate, precut blank front panel, and plastic lens. Features separate battery compartment with access door and integral tilt stand. Case front includes molded switch and display ports, matching precut front panel, and case top insert plate has predrilled connector ports. Size: 7.6"L x 3.75"W x 1.72"H (193 x 95 x 44 mm). Weight: 6 oz. (272 gm).

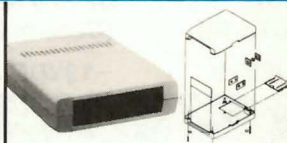
CTH-2..... \$13.95



The Probe Case

Includes grey plastic case shell halves; threaded 1.5 inch (38mm) probe tip; hexagonal-barrel female probe tip connector; 36 inch (914mm) polarized two-wire power cord with red, black vinyl jacketed alligator clips attached; molded strain relief feature; pre-cut perf board; mounting screws. Size: 5.8"L x 1.0"W x 0.7"H (147 x 25 x 18mm). Weight: 3 oz. (85 gm). Usable printed circuit board area 3.9" x 1.0".

CTP-1..... \$9.95



The Portable Case

Includes grey plastic case shell halves; separate battery compartment cover; 2 fitted switchplates; red transparent plastic front cover; power jack; four vinyl feet; mounting screws. Size: 7.75"L x 5.63"W x 1.75"H (197 x 143 x 44 mm). Weight: 9 oz. (255 gm). Usable printed circuit board area 5.5" x 5.3" (not incl. battery compartment); inside height with a printed circuit board in place: 1.3".

CBP-1..... \$15.95



The Benchtopper Case I & II

Includes grey plastic case shell halves; black extenders (CTB-2 only); front and back fitted aluminum plates; four vinyl feet; mounting hardware; printed circuit board bosses .0437" high.

CTB-1 — Size: 7"L x 10"W x 3"H (178 x 254 x 76mm). Weight: 15 oz. (425 gm). Usable printed circuit board area 6.25" x 9.5"; inside ht. 2.75".

CTB-2 — Size: 7"L x 10"W x 4"H (178 x 254 x 102mm). Weight: 22 oz. (625 gm). Usable printed circuit board area 6.25" x 9.5"; inside ht. 3.75".

CTB-1..... \$18.95

CTB-2..... \$26.95



Instrument Clock Case

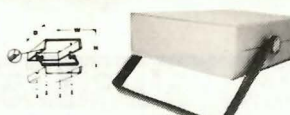
This case is an injection molded unit that is ideal for uses such as DVM, counter, or clock cases. It is a black case with red lens and includes a mounting bracket for car dash), bezel, and four screws. Hole in back for power cord. Inside dimensions: 3¾"W x 4¾"L x 1¾"H. Outside dimensions: 3¾"W x 4¾"L x 1¾"H. Lens dimensions: 3¼"W x ¾"H.

Instrument/Clock Case:

IN-CC..... \$4.95 each

Lens Only for IN-CC:

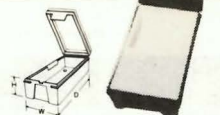
IN-LENS..... \$1.49 each



Portable/Bench Top Instrument Enclosures

This enclosure is constructed of impact-resistant ABS material. The enclosure is supplied with an aluminum front panel, multi-position tilt-stand handle and all assembly hardware. Inside dimensions: 8.2"W x 8.7"D x 2.5"H. Outside dimensions: 8.5"W x 9.0"D x 2.8"H. Maximum board size: 8.0"W x 8.5"D. Color: black.

BT9000..... \$19.95



Portable Instrument Enclosures

This enclosure is molded in one-piece construction (ABS material) and has a hinged lid which snaps closed to provide protection for any panel-mounted items. Case size: 3.2"W x 5.5"D x 2.0"H. Color: black.

Case Only:

PIE2030..... \$2.49

Aluminum Panel:

AP2350..... \$.59

Recessed Grey Panel:

RP2380..... \$.79

ENCODED KEYBOARD KITS AND ACCESSORIES

JE600 HEXADECIMAL ENCODER KIT

Mail Order Electronics Worldwide
Jameco
ELECTRONICS

**Special
Reduced
Price!**



The JE600 Encoder Keyboard Kit provides two separate hexadecimal digits produced from sequential key entries to allow direct programming for 8-bit microprocessor or 8-bit memory circuits. Three additional keys are provided for user operations with one having a bistable output available. The outputs are latched and monitored with 9 LED readouts. Also included is a key entry strobe.

- 19-key hex keyboard • Full 8-bit latched output for microprocessor use
- Debounce circuit provided for all 19 keys • 9 LED readouts to verify entries
- Easy interfacing with standard 16-pin DIP jumper connector • Power Requirement: +5VDC • 3 user-define keys • Size: 1½"H x 4⅞"W x 6¼"L (JE600 Kit)

JE600/DTE-HK Hexadecimal Encoder Keyboard Kit (As Shown) . \$74.95

JE600 Kit	19-Key Hexadecimal Keyboard, PC Board & Components (case not included) . . .	\$39.95
K19	19-Key Keyboard (Keyboard only) See page 63 for detailed description	\$11.95
DTE-HK	(Case only — 3½"H x 8¼"W x 8¾"D).	\$41.95

JE610 ASCII ENCODED KEYBOARD KIT

Mail Order Electronics Worldwide
Jameco
ELECTRONICS

**Special
Reduced
Price!**



The JE610 ASCII Keyboard Kit can be interfaced into most parallel output computer systems. The kit comes complete with industrial grade keyboard switch assembly (62-keys), IC's, sockets, connector, electronic components and a double-sided printed circuit board.

- 60 keys generate the 128 characters, upper and lower case ASCII set • Fully buffered • 2 user-define keys • Caps lock for upper-case-only alpha characters
- Utilizes a 2376 (40-pin) encoder read-only memory chip • Outputs directly compatible with TTL/DTL and MOS logic levels • Parallel output • Easy interfacing with a 16-pin DIP or 18-pin edge connector • Power Requirement: +5V @ 150mA and -12V @ 10mA • Size: 1½"H x 6½"W x 13¼"L (JE610 Kit)

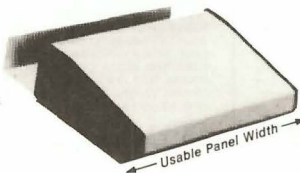
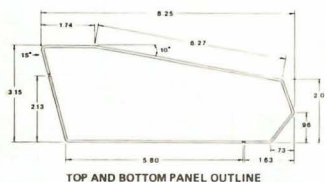
JE610/DTE-AK ASCII Encoded Keyboard Kit (As Shown) \$114.95

JE610 Kit	62-Key Keyboard, PC Board & Components (case not included)	\$74.95
K62	62-Key Keyboard (Keyboard only) See page 63 for detailed description	\$33.95
DTE-AK	(Case only — 3¼"H x 14¼"W x 8¾"D).	\$47.95

JE212	-12VDC Adapter Board Kit for JE610 Kit (Provides -12VDC from incoming 5VDC).	\$6.95
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KEYBOARD ENCLOSURES

UNIVERSAL COMPUTER KEYBOARD ENCLOSURE



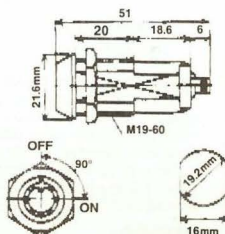
• Construction: The "DTE" Blank Desk-Top Keyboard Enclosures are designed for easy modification for today's computer equipment • High-strength epoxy molded end pieces in mocha brown finish • Sliding rear/bottom panel for service and component accessibility • Top and bottom panels .080" thick aluminum alodine type 1200 finish (gold tint color) for best paint adhesion after modification • Vented top and bottom panels for cooling efficiency

DTE-8	Usable Panel Width 7.5"	\$29.95
DTE-11	Usable Panel Width 10.13"	\$31.49
DTE-14	Usable Panel Width 13.50"	\$32.95
DTE-20	Usable Panel Width 19.25"	\$36.49
DTE-22	Usable Panel Width 21.375"	\$37.95

COMPUTER KEYLOCK SWITCHES



- Rated: 3A/125VAC
- Two keys included per set



- SPST ROUND KEYLOCK SWITCH (Shunt Type)
Key removeable from 2 positions

KS-1B. \$4.49 each

- SPST ROUND KEYLOCK SWITCH (Momentary Type)
Spring loaded

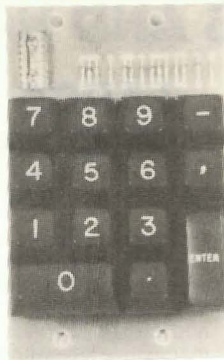
KS-2BM. \$4.95 each

GENERAL PURPOSE KEYBOARDS

HI-TEK 14-Key Numeric Keypad

- Mechanical SPST switching
- Charcoal grey keycaps
- Mounted on PC board
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure
- Size: 5"L x 3"W x 1½"H
- Pin-out available

Part No. K14 . . . \$9.95 ea.



STACKPOLE 19-Key Hexadecimal Keyboard

- Mechanical SPST switching
- Charcoal grey keycaps
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure
- Size: 3"L x 3¾"W x 1½"H
- Data sheet available

Part No. K19 . . . \$11.95 ea.

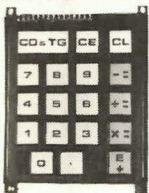


Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710" sq. 13° tilt)	.99	.75	.59

Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710" sq. 13° tilt)	.99	.75	.59

CALCULATOR KEYBOARDS

Molded keypad assembly provides the user unlimited applications for numeric keyboard entry requirements. User may also alter the unused keypads for special key-in command requirements. No specs available.



2¾"L x 3½"W x ½"H
4 Function

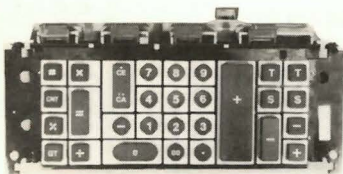
Part No. K17 (17-Key) . . . (2000 available) . . \$2.95



2-13/16"L x 3½"W x ½"H
5 Function

Part No. K18 (18-Key) . . (1200 available) . . \$3.95

29-Key Keyboard



ALPS KEYBOARDS

These ALPS keyboards have four switches: one 7-position decimal switch; two 2-position switches (one being on/off); and one 3-position switch. Mechanical SPST switch has a 22-pin edge card connection. Includes pin-out diagram for each keyboard. Size: 9¾"L x 4½"W x 1¾"H.

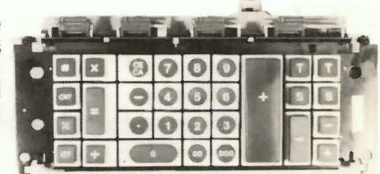
**6000
Available!**

Part No. KB297040 . . . \$2.49

**2000
Available!**

Part No. KB297043 . . . \$2.95

30-Key Keyboard



UNENCODED QWERTY KEYBOARDS



54-KEY KEYBOARD Mitsumi Keyboard

- Unencoded all-purpose QWERTY keyboard • SPST keyswitches • 20 pin ribbon cable connection • Low profile keys • Features: cursor controls, caps, function, control, enter and shift keys • Color (keycaps): grey • Size: (incl. mounting plate): 13½"L x 4¼"W x ¾"H • Weight: 1 lb. • Fits in DTE-14 enclosure • Data sheet included

Part No.	Description	Price
KB54	Fixed wire matrix (700 available)	\$ 9.95
KB54-1	Alterable matrix (300 available)	\$14.95



62-KEY KEYBOARD Stackpole Keyboard

- The right keyboard for your standard or custom keyswitch/keyboard requirements • Unencoded all-purpose QWERTY keyboard • Charcoal grey keycaps • Mechanical SPST switching • Fits into DTE-14 enclosure (see page 62) • Size: 13"L x 3¾"W x 1½"H • Wt: 1 lb. • Data sheet available

Part No. K-62 \$33.95

Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710" sq. 13° tilt)	.99	.75	.59

UNENCODED & ASCII ENCODED KEYBOARDS

ATTENTION SCHOOLS AND HOBBYISTS!



**Top
Manufacturers!**

LARGE SELECTION OF ENCODED COMPUTER KEYBOARDS

These computer keyboards can be used for experimental purposes, special school projects, or even spare parts (e.g. keyswitches, keycaps, chips, etc.). Minimum of 68 keys. Serial and parallel interfaces. Many have separate numeric and cursor keypads. Top manufacturers includes Cherry (capacitive keyswitching), Micro Switch (Hall Effect switching), and Keytronic (SPST switching). Sizes and styles will vary. No specs. available.

KB-MISC. \$6.95



77-Key Unencoded Cherry Keyboard

- 18-key keypad with cursor controls • Capacitive keyswitches • 26-pin male header connector • Features: Escape, control, erase, line feed, new line, break, delete, case, backspace, home, enter, cursor controls and shift keys • Color (main and numeric): white — (cursor controls): grey • Size: 16 $\frac{5}{8}$ "L x 6 $\frac{1}{4}$ "W x 1 $\frac{1}{2}$ "H • No spec.

KB77. (650 available) \$9.95



66-Key Unencoded Keytronic Keyboard

- 10-key numeric keypad • SPST mechanical keyswitches • Connection: Two 18-pin edge-cards • Parallel output • Color (keys): black and grey • Size: 14 $\frac{1}{4}$ "L x 5 $\frac{1}{2}$ "W x 2 $\frac{1}{2}$ "H (including mounting plates) • Fits DTE-20 enclosure • Spec. included

KB6600. (190 available) \$9.95



87-Key Unencoded Micro Switch Keyboard

- 3 keypads: special function, cursor and numeric • Hall Effect switching • 26-pin male header connector • Features: Cursor controls, escape, erase, print, send, reset, delete, break, insert character, delete character, and many other special functions • Color: white/black • Size: 18"L x 5 $\frac{1}{2}$ "W (including extended PC board) x 1 $\frac{3}{4}$ "H • No spec.

KB87. (190 available) \$9.95



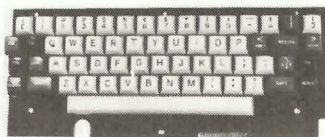
93-Key Unencoded Keytronic Keyboard

- 3 keypads: special function, cursor and numeric • Capacitive switching • 15-pin strip connection • Features: Indent, outline, center, tab, caps lock, alternate shifts, mark, move, phrase, cancel, menu, insert, delete, cursor controls, and more • Three status LEDs • Color: black • Size: 23"L x 5 $\frac{1}{2}$ "W x 1 $\frac{1}{2}$ "H • No spec.

KB2312. (375 available) \$12.95

All-Purpose QWERTY!

60-Key Unencoded Stackpole Keyboard



- SPST mechanical keyswitches • 18-pin female ribbon cable connection • Keyboard mounted on sturdy PC board • Color (keys): tan, brown, red & blue • Size: 12"L x 5 $\frac{1}{16}$ "W x 1 $\frac{1}{2}$ "H • Fits DTE-14 enclosure • Spec. included

KB60. (1600 available) \$9.95

76-Key ASCII Keyboard



- Capacitive switching • Operates in upper and lower case • 5 user-function keys: F1-F5 • Features: Cancel, shift lock, interrupt, control, delete, backspace, enter, new line and shift keys • Color (keys): tan • Size: 16 $\frac{1}{16}$ "L x 6 $\frac{3}{8}$ "W x 1 $\frac{1}{8}$ "H • Weight: 2 lbs. • Pin-out included

KB76. (700 available) \$12.95



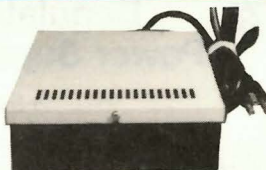
74-Key ASCII Cherry Keyboard

- 7-bit parallel ASCII • Full Upper Case, Full Lower Case except l, m, n, o & p • Cursor keypad • SPST mechanical keyswitches • 26-pin header connector • Color: white • Size: 18"L x 6 $\frac{1}{4}$ "W x 1 $\frac{1}{4}$ "H • Fits DTE-20 enclosure • Spec. included

KB8201. (1500 available) \$14.95

POWER SUPPLIES

Only 300
Available!



TRANSACTION TECHNOLOGY, INC.

CLOSE-OUT!

Power Supply

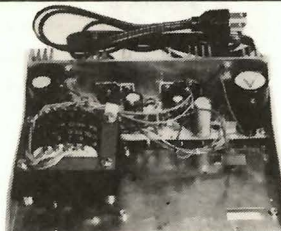
5VDC @ 1 AMP REGULATED

• Input: 115VAC @ 60Hz • Output: +5VDC @ 1 amp (also +30VDC) regulated • Two-tone (black/beige) self-enclosed case • 6 foot, 3-conductor black power cord • Weight: 3 lbs. • Size: 6½"W x 7"D x 2¼"H • Data included

Part No. PS51194. \$9.95 each

5VDC @ 1 Amp

- + 5VDC @ 3 Amps
- 5VDC @ 200mA
- +12VDC @ 2.9 Amps
- +12VDC @ 2.9 Amps
- +18VDC @ 1 Amp



COLECO

ONLY 2000 AVAILABLE!

Power Supply

• Input: 120VAC @ 60Hz • Output (9-pin D-Subminiature connection): –5VDC @ 200mA; +5VDC @ 3 amps; two +12VDC @ 2.9 amps (On-board 4 pin connector); +5VDC @ 3 amps, +12VDC @ 2.9 amps; and +18VDC @ 1 amp unregulated • Spike protection • On/off switch • 3-prong power cord included • 9-pin D-Subminiature cord included • Size: 9"L x 7½" W x 3¼"H • Weight: 2 lbs. • Spec. included

Part No. PS72559. \$14.95 each

Only 600
Available!



**5VDC @ 3 Amps/
6VDC @ 2.5 Amps**

Only 200
Available!



**5VDC @ 6 Amps/
6VDC @ 5 Amps**

POWER/MATE CORP.

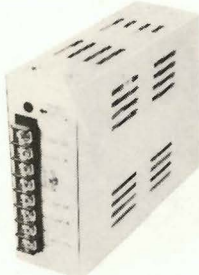
Regulated Power Supplies

• Input: 105-125/210-250VAC @ 47-63Hz • Line/Load Regulation: ±0.05% • Output ripple: 3mV peak-to-peak typical, better than 1mV RMS • UL recognized • CSA certified • Remote sensing • Short circuit and overload protection • Convection cooled • Three mounting surfaces • Overvoltage protection • Spec. included

Part No.	Output	Size	Weight	Price
EMA5/6B	5V@3A / 6V@2.5A	4¾"L x 4"W x 2½"H	2 lbs.	\$29.95 each
EMA5/6C	5V@6A / 6V@5A	5¾"L x 4¾"W x 2¾"H	4 lbs.	\$39.95 each

**OVER
10,000 SOLD!**

- + 5VDC @ 5 Amps
- 5VDC @ 1 Amp
- +12VDC @ 1 Amp
- 12VDC @ 1 Amp



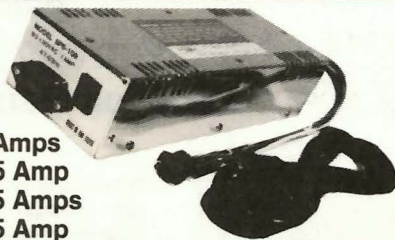
4-Channel Switching Power Supply



• Microprocessor, mini-computer, terminal, medical equipment and process control applications • Input: 90-130VAC @ 47-440Hz • Output: +5VDC @ 5 amps, –5VDC @ 1 amp; +12VDC @ 1 amp, –12VDC @ 1 amp • Line Regulation: ±0.2% • Ripple: 30mV peak-to-peak • Load Regulation: ±1% • Stability: 0.1% after 8 hours • Overcurrent Protection: 110-130% automatic current limiting • Adjustment: 5V main output ±10% • Cooling Method: Convection cooled • Weight: 1½ lbs. • Size: 6¾"L x 1¾"W x 4¼"H • Spec. included

Part No. FCS-604A. \$59.95 each

- + 5VDC @ 5 Amps
- 5VDC @ 0.5 Amp
- +12VDC @ 1.5 Amps
- 12VDC @ 0.5 Amp



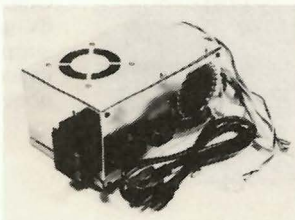
Switching Power Supply for APPLE II, II+ and IIe™



• Can drive four floppy disk drives and up to eight expansion cards • Short-circuit and overload protection • Fits inside Apple™ computer • Fully regulated +5V @ 5 amp, +12V @ 1.5 amp, –5V @ .5 amp, –12V @ .5 amp • Apple-type plug in power cord included • Size: 9¾"L x 3½"W x 2¼"H • Weight: 2 lbs. • Spec. included

Part No. KHP4007. \$39.95 each

- + 5VDC @ 15 Amps
- 5VDC @ 0.5 Amp
- +12VDC @ 4.2 Amps
- 12VDC @ 0.5 Amp



UPGRADE YOUR PC!

IBM PC/XT Equivalent 130 Watt Power Supply



• Input: 100V-130V @ 47Hz • Output: +5VDC @ 15 amp, –5VDC @ 0.5 amp, +12VDC @ 4.2 amp, –12VDC @ 0.5 amp • Plug compatible connectors • Fits into IBM PC • Weight: 6 lbs. • Size: 9½"L x 5½"W x 4¾"H • Spec. included

Part No. IBM-PS. \$99.95 each

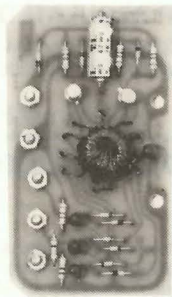
WE SPECIALIZE IN POWER SUPPLIES – NEW ADDITIONS ARRIVING MONTHLY

• Quality Components • Competitive Pricing • Prompt Delivery • (415) 592-8097

JAMECO QUALITY KITS



Multi-Voltage Board Kit Adapts to JE200 to supply 3 voltages



- -5VDC @ 250mA, ±9VDC @ 200mA, ±12VDC @ 160mA output (independent load rating at single terminal)
- DC/DC converter with +5V input
- Toroidal high speed switching transformer
- Short circuit protection
- PC board construction
- Piggy-back to JE200 board for mounting
- Loads up to 2 watts total power
- Size: 3½" L x 2" W x ¾" H

-5VDC @ 250mA
±9VDC @ 200mA
±12VDC @ 160mA

**SPECIAL
REDUCED
PRICE!**

JE205 Multi-Voltage Board Kit. . . . \$7.95



Regulated Power Supply Kit

+5VDC @ 1 Amp



- Provides 1 solid amp @ 5V output
- 120VAC input
- Uses LM309K Regulator
- Heat Sink provided
- PC board construction
- Includes components, hardware and instructions
- Size: 3½" L x 5" W x 2" H

OPTION:

The JE205 Multi-Voltage Kit \$7.95
(See description at left)

JE200 Regulated Power Supply Kit . . \$14.95



Variable Power Supply Kit

**+5 to +10VDC @ 1.5 Amp
+15VDC @ 0.5 Amp**



- Full 1.5 amp @ +5 to +10VDC output
Up to 0.5 amp @ 15VDC output
- 120VAC input
- Heavy duty transformer
- 3-terminal IC Voltage Regulator (LM309K)
- Heat sink provided for cooling efficiency
- PC board construction
- Size: 3½" L x 5" W x 2" H

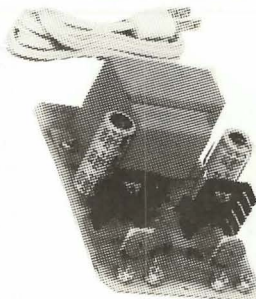
**SPECIAL
REDUCED
PRICE!**

JE210 Variable Power Supply Kit. . . \$16.95



Adjustable Power Supply Kit

±5VDC to ±15VDC @ 175mA-750mA



- Adjustable positive & negative supplies
±5 to ±15VDC Regulated
175mA - 750mA per supply
- Positive and negative
1.2VDC to 15VDC (Range)
- Power output (each supply):
5VDC @ 500mA, 10VDC @ 750mA,
12VDC @ 500mA, and
15VDC @ 175mA
- 120VAC input
- Two 3-terminal adjustable regulators
with thermal overload protection
- Heat sink regulator cooling
- LED "on" indicator
- PC board construction
- Size: 3½" W x 5½" D x 2" H

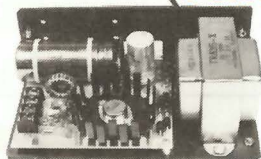
**SPECIAL
REDUCED
PRICE!**

JE215 Adjustable Power Supply Kit . . \$19.95



Adjustable Switching Power Supply

**+4VDC to +24VDC
Up to 5 Amps**



- Adjustable: 4 to 24VDC, 5A @ 5VDC (Deraled to 0.5A @ 24VDC: 4.8A @ 6VDC; 4.1A @ 9VDC; 3.3A @ 12VDC; 1.9A @ 18VDC) • Regulated outputs with overcurrent protection • Input: 115VAC 50/60Hz • Output variations within 20mV • Out Sense terminals • Step down regulator • Rigid frame with mounting holes • Size: 8.25" L x 4.25" W x 2.25" H • Weight: 3.25 lbs.

The JE224 is a high-efficiency power supply utilizing an LH1605 (8-pin, TO-3 package) 5 amp switching regulator. The LH1605 provides high current output while maintaining a small physical configuration. Open frame type to allow mounting into restricted areas.

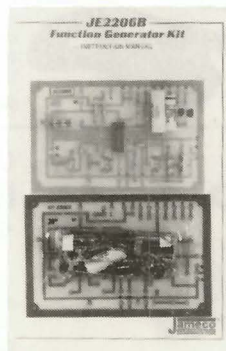
JE224K Adjustable Power Supply Kit. . . \$69.95

JE224A Assembled and Tested. \$89.95

— ALL ABOVE KITS COME COMPLETE WITH ASSEMBLY INSTRUCTIONS —



Function Generator Kit



Provides three basic waveforms: sine, triangle and square wave. Frequency range: 1Hz to 100kHz. Output amplitude from 0V to over 6V (peak to peak). Uses a 12V supply or a ±6V split supply. Includes chip, PC board, components and instructions.

**SPECIAL
REDUCED
PRICE!**

JE2206B Function Generator Kit. . . \$14.95

JAMECO QUALITY KITS



6-Digit Clock Kit



FEATURES:

- 6 digit LED display x .3"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • 12 or 24 hour operation
- Printed wiring board assembly

DESCRIPTION:

Bright .300" high common cathode display. Uses MM5314 clock chip. Switches for hours, minutes and hold functions. Hours easily viewable to 20 feet. Simulated walnut case. 115VAC — 12 or 24 hour operation. Includes all components, case and wall transformer. Size: 6 $\frac{5}{8}$ "L x 3 $\frac{1}{8}$ "H x 1 $\frac{3}{4}$ "D.

JE701 6-Digit Clock Kit. \$19.95



Jumbo 6-Digit Clock Kit



FEATURES:

- 4 digit x .800"H and 2 digit x .300"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • 12 or 24 hour operation • Printed wiring board assembly

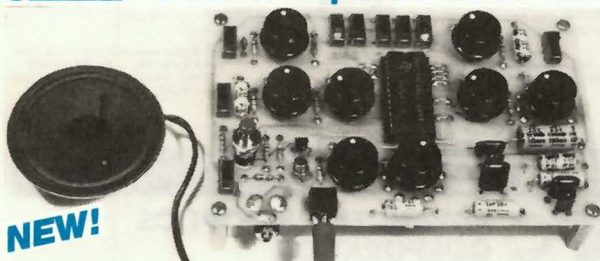
DESCRIPTION:

Four .800" ht. and two .300" high common anode displays. Uses MM5314 clock chip. Pressure switches for hours, minutes and hold functions. Hours easily viewable to 30 feet. Simulated walnut case. 115VAC — 12 or 24 hour operation. Includes all components, case and wall transformer. Size: 6 $\frac{5}{8}$ "L x 3 $\frac{1}{8}$ "H x 1 $\frac{3}{4}$ "D.

JE747 Jumbo 6-Digit Clock Kit. \$24.95



Sound Experimenter Kit



FEATURES:

- Unlimited sound capabilities • On-board mixer • Expandable • 5 volt output • Variable pitch • Variable rate • Variable attack/decay • White noise generator • and much more!

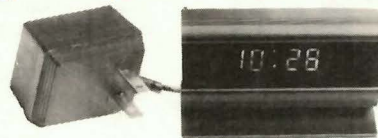
DESCRIPTION:

This fun and unique kit allows you to synthesize sounds that are limited only by your imagination, such as planes, trains, race cars, birds, whistles, explosions, space warps, phasers, etc. The JE755 has the ability to be expanded by combining and altering sound with the use of external parts. An external amplifier or stereo system may be added to provide a richer sound. The JE755 may be powered by a 9V battery (not included) or by an optional wall transformer (Part No. DC901, \$4.25). In order to understand and utilize all the functions of the JE755, it is suggested that the 76477 data sheet be purchased as well (\$1.00). This kit includes all components (as pictured) as well as documentation for assembly and use. Size: 5 $\frac{1}{2}$ "L x 3 $\frac{5}{8}$ "W x 1 $\frac{3}{4}$ "H.

JE755 Sound Experimenter Kit. \$34.95



4-Digit Clock Kit



FEATURES:

- 4 digit LED display x .375"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • Sequential flashing colon • 12 or 24 hour operation • Printed wiring board assembly

DESCRIPTION:

Bright .375" ht. common cathode display. Sequential flashing colon. 12 or 24 hour operation. Black extruded aluminum case. Pressure switches for hours, minutes and hold functions. Includes all components, case and wall transformer. Size: 3 $\frac{3}{8}$ "L x 1 $\frac{3}{4}$ "H x 1 $\frac{1}{4}$ "D.

JE730 4-Digit Clock Kit. \$19.95



4-Digit Fluorescent Alarm Clock Kit



FEATURES:

- Bright 4 digit 0.5" high display • Flashing colon • Alarm tone 500Hz once per second • 10 minute snooze alarm • AM/PM indicator • Automatic display (photo cell) dimmer

DESCRIPTION:

The JE750 Clock Kit is a versatile 12-hour digital clock with 24-hour alarm. The clock has a bright 0.5" high blue-green fluorescent display. The 24-hour alarm allows the user to disable the alarm and immediately re-enable the alarm to activate 24 hours later. The kit includes documentation, components, case and wall transformer. Size: 6 $\frac{5}{8}$ "L x 3 $\frac{1}{4}$ "H x 1 $\frac{3}{4}$ "D.

JE750 4-Digit Alarm Clock Kit. \$29.95



Digital Thermometer Kit



FEATURES:

- Dual sensors: Switch control for indoor/outdoor or dual monitoring applications • Circuitry: Intersil 40 pin A/D converter chip (7107CPL) • Continuous reading of 3 bright .80" high HP displays • Range: -40°F to 199°F, -40°C to 100°C • Accuracy: $\pm 1^\circ$ nominal (depending on range and calibrating conditions) • Setting for either Fahrenheit or Celsius degrees
- Sensors can be placed over 10 feet from case with wires provided
- Sensors may be submerged in water provided they are first coated with silicon

DESCRIPTION:

Dual sensors for indoor/outdoor or dual monitoring applications. Sensors can be extended up to 500 feet. Manual switch for sensor selection. Continuous LED .8" high display. Simulated walnut case. AC wall adapter included. Size: 6 $\frac{5}{8}$ "L x 3 $\frac{1}{4}$ "H x 1 $\frac{3}{4}$ "D.

JE300 Digital Thermometer Kit. \$39.95

— ALL ABOVE KITS COME WITH COMPLETE ASSEMBLY INSTRUCTIONS —

EDUCATIONAL ELECTRONIC ROBOT KITS



**Clever, inexpensive
robot kits!**

The **MOVIT** line is a series of computerized (and logic-controlled) battery robot kits that can teach the basic principles of robotic sensing and locomotion. Each of the kits features pre-assembled pc boards, hardware and mechanical-drive systems that can be handled by anyone. Only basic hand tools are required for assembly. These fascinating robots allow you to experience and learn any one of the following features: sound sensor, remote control, wired control and/or programmable memory. OWI's **MOVIT** line has provided the future with an innovative electronic educational kit. They are affordable robots that can entertain as well as educate. **Now meet the family!**

PEPPY



The PEPPY has a two-way sensor that is susceptible to noise and solid objects in its path. When the sensor located in front comes into contact with an obstacle or hears a loud noise, such as a hand clap, it will automatically reverse, turn to the left, and resume its new course until it hits another object in its path. It's an exciting robot which is sure to give many happy hours to all the family.

- Power source: 2 each AA batteries (not included)
- Color: pink • Size: 4.75" Radius x 2.75"H

PIPER-MOUSE



This is a Supersonic-Robot controlled by a supersonic sound sensor and an electronic circuit (one channel). Use the whistle attached to this kit and Piper Mouse will follow your commands. He will immediately turn to the left, stop, turn to the right, stop, advance and stop.

- Movement: 3 wheels driven by 2 DC motors
- Control: Supersonic sound sensor including condenser microphone and PC board
- Power source: 2 each AA batteries and 1 each 9V battery (not included) • Color: blue

MV-916 (Sound/Touch Sensor) \$24.95

MV-915 (Sound Sensor) \$39.95

MEMOCON CRAWLER

**Build an interface
from your crawler to
your personal
computer!**



This robot is memory controlled through the keyboard included in this kit & runs as per the program you input using this keyboard. The keyboard has 5 different switches. The commands include: forward, to the right, to the left, pause, sound a buzzer and light up (LED). This robot employs a sequence function static RAM 256x4 bit memory.

- Movement: 3 wheels driven by 2 DC motors
- Control: Memory/electronics circuit (through the keyboard)
- Element: 4-bit static RAM
- Modes: Right, left, forward, pause, buzzer, beam (LED)
- 256 steps (no repeat steps) approx. 0.7-0.3 sec/1 step
- Power source: 2 ea. AA batteries, 1 ea. 9V battery (not incl.)
- Color: black

MV-918 (Programmable Memory) \$64.95

MR. BOOTSMAN



The MR. BOOTSMAN has 6 insect-like legs, 2-speed movement, and includes a control box. The unique MR. BOOTSMAN can walk or run forward or backward, left or right, and when the leg movement on one side is reversed and the other side continues its forward action, the MR. BOOTSMAN can execute 360° turns. You can use this robot for thrilling games of football or pushing matches, and you can even program your own games.

- Power source: 2 each AA batteries (not included) • Color: blue

MV-931 (Wired Control) . . . \$29.95

CIRCULAR



The CIRCULAR has 2 large wheels which roll this super robot left and right, forward, or round and round. All the movements can be perfectly controlled by a hand-held remote control box. The CIRCULAR slips silently and smoothly along, making your friends stare in wonder. It's a robot from another age and can provide endless hours of amusement for all the children, and adults too!

- Power source (main body): 3 ea. AA batteries, 1 ea. 9V battery - (control box): 1 ea. 9V battery (not included) • Color: green

MV-935 (Remote Control) . . \$59.95

FIBEROPTICS EDUCATIONAL KIT

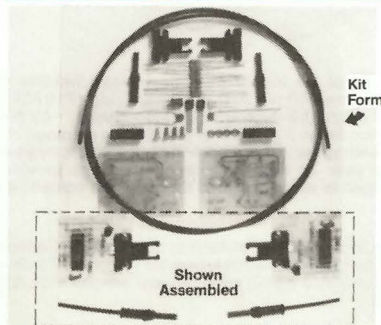


**ADVANCED FIBEROPTICS
CORPORATION**

LOOKING AHEAD THROUGH FIBEROPTICS

The EDU-LINK Learning Kit

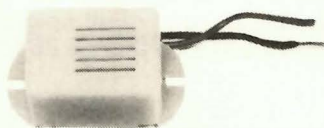
The EDU-LINK fiber optic system is a low cost, TTL compatible data transmission system designed specifically as an educational tool for students and engineers working in many different industries. This kit will easily demonstrate the principles of fiber optic system design. The EDU-LINK package includes a transmitter PCB, a receiver PCB, one meter of plastic optical fiber, and all the necessary electrical hardware. Complete step-by-step instructions, theory of operation, and tutorial information are included. The finished product can be used immediately for direct data transmission. A built-in oscillator on the transmitter PCB will allow transmission without an external CMOS and TTL input.



Part No. ELK-1. \$19.95

BUZZERS, SIRENS AND SPEAKERS

MINI-BUZZER



- **MB6** Operates on +6 to +9 VDC
- Output frequency: 800Hz
- Draws only 15mA @ 600 Ohms
- Sound: 80db
- Size: 1 1/4" x 5/8"

	1-9	10+
MB6	\$1.75	\$1.49

SONALERT Audible Signal Device



*"Use as a Warning Device
or Audible Reminder"*

- Turns on and off with low power transistor, SCR or IC • Can be battery operated 4-28volts • Solid-state — no moving parts • Panel mounts in 1.25" round hole • Black plastic case — includes mounting nut • Operating volts (DC): 4V (min.) to 28V (max.) • Current mA: 3mA (min.) to 25mA (max.) • dbA: 69dbA (min.) to 80dbA (max.) • Frequency: 2900HZ ±500 • Size: 1 1/4"H x 1 1/16"D

	1-9	10+
SC628 (HJ-650)	\$6.95	\$6.49

UNIVERSAL BUZZER



- 9-12VDC operation • Fits most applications where high volume alarm is needed • Size: 2" dia. x 1 1/4"H

	1-9	10+
UB12	\$.99	\$.75

PIEZO TECHNOLOGY — MINI SUPER SIRENS — PIEZO TECHNOLOGY

The Piezo Supersirens incorporate the latest technological advances and are ideal primary or backup alarm sirens for automotive, commercial, residential, institutional, and industrial applications. Exceptionally low current drain, compact design, and versatile mounting permits optimum utilization of space and power consumption, yet the extra loud high pitched piercing sound exceeds that of sirens many times its size. Housings are constructed of durable, weather resistant ABS plastic.

High Frequency Chirping Pitch



- Size: 1 5/8"W x 2 1/4"D x 1 1/2"H • Maximum Current Drain: 170mA • Db Rating: 110 • Working Voltage: 6-12VDC

	1-9	10+
Model SSP-1	\$9.95	\$8.95

European High-Low Pitch



- Size: 2"W x 1 1/16"D x 2"H • Maximum Current Drain: 300mA • Db Rating: 115 • Working Voltage: 6-12VDC

	1-9	10+
Model SSP-2	\$13.95	\$12.95

High Frequency Warble



- Size: 3 5/8"W x 3 1/4"D x 3 5/8"H • Maximum Current Drain: 300mA • Db Rating: 120 • Working Voltage: 6-12VDC

	1-9	10+
Model SSP-3	\$15.95	\$14.95

ROUND

A0201

8 Ohm .25 Watt
Size: 2 1/4" dia. x 1 1/16" deep

A0202

8 Ohm .30 Watt
Size: 2 1/2" dia. x 3/4" deep



	1-9	10+
A0201 2 1/4"	\$.99	\$.75
A0202 2 1/2"	\$1.19	\$.89

SPEAKERS

2 1/2" Square
16 Ohm
.25 Watt
(4 mounting holes)
Large Ceramic Magnet
Size:
2 5/8" square x 3/4" deep



	1-9	10+
SF-25016	\$1.19	\$.89

SQUARE

1 3/16" Square x
5/32" Thick
8 Ohm — .40 Watt

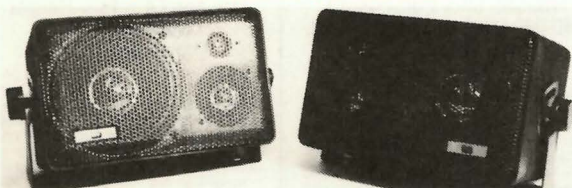


- Stainless steel diaphragm • Ferrite bonded magnet • Slim line • For alarms, music sounds, telephone equipment, computers, speech aid, etc.

	1-9	10+
TS30S	\$1.95	\$1.75

FOR THE AUTO • FOR THE AUTO • SPEAKERS • FOR THE HOME • FOR THE HOME

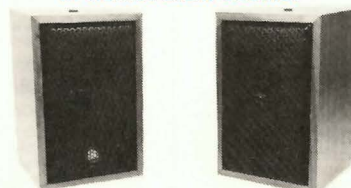
3-WAY MINI SPEAKER



- Great for home or auto • 8 Ohm • Easy to install • 3-way high intensity mini speaker • Diecast construction • Wire mesh grille • 30 Watt RMS • 50 watts maximum • Adjustable hang-on mounting brackets included • Weight: 8 lbs./pair • Size: 7 1/4" L x 4 1/2" W x 4 5/8" H

	1-9	10+
SB-100	\$34.95/pr.	\$29.95/pr.

HIGH INTENSITY MINI SPEAKER in Walnut Grain Cabinet



- Great for home or auto • 4 1/2" specially designed extended range woofer • Ultra high frequency dome tweeter • High density, low resonance wood core construction with durable walnut grain laminate finish and deluxe mesh grille • 30W RMS; 50W peak power handling • 50-20,000Hz response • 8 Ohms • Adjustable hang-on mounting brackets included • Size: 5 1/2" W x 5 3/4" D x 8 3/4" H • Weight: 12 lbs./pair

	1-9	10+
SB-20	\$54.95/pr.	\$49.95/pr.

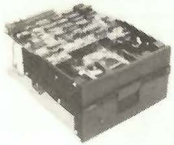
DISK DRIVES AND ENCLOSURES

MPI51S 5¼" Full Height Disk Drive*

TRS-80 Model I and III Owners!

• Use as a second disk drive • Single-sided • Single/double density • Full height drive • 48 TPI • 40 tracks • Documentation included • Size: 5.75"W x 7.75"D x 3.25"H • Weight: 3.7 lbs.

MPI51S. (400 available). \$69.95



TANDON TM100-2

5¼" Full-Height Disk Drive*

• Double-sided • Single/double density • Full-height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.75"W x 8"D x 3.25"H • Weight: 3.7 lbs.

TM100-2. \$99.95



SHUGART SA455

5¼" Half-Height Disk Drive*

• Double-sided • Single/double density • Half-height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.75"W x 8.46"D x 1.62"H • Weight: 3.3 lbs.

SA455. \$99.95



TEAC FD55B/F

5¼" Half-Height Disk Drive*

FD55B • Double-sided • Single/double density • Half-height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.34"W x 8"D x 1.58"H • Weight: 3.3 lbs.

FD55F • Double-sided • Quad density • 96 TPI • 160 tracks per disk • Avg. access time: 94ms • Track access time: 3 ms • Documentation incl. • Size: 5.34"W x 8"D x 1.58"H • Weight: 3.3 lbs.

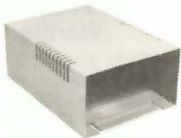
FD55B (Double Density). . . . \$99.95
FD55F (Quad Density). \$99.95



5¼" Disk Drive Enclosure

The 5¼" Disk Drive case houses 1 standard full height 5¼" floppy disk or 2 thinline drives. Finished to match an APPLE™ computer. Sturdy metal construction. Complete with four (4) mounting screws (some modification required). Size: 8⅝"L x 6⅞"W x 3⅞"H.

DCC-5¼. (300 available). \$19.95



DISK DRIVE ENCLOSURES WITH POWER SUPPLIES

5¼" Disk Drive Enclosure

Just Plug-In!



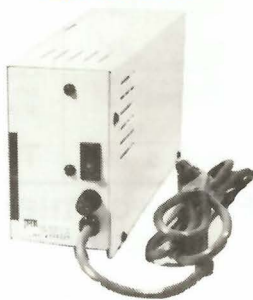
DDE-1FH
(Front View)

Houses One Full-Height 5¼" Disk Drive

• Power: +5V @ 1.0A, +12V @ 1.2A
• Textured paint • Slot for data cable
• The unit comes complete with power supply, switch, power cord, fuseholder and connectors • Size: 5⅞"W x 3¼"H x 11½"D • Wt.: 6 lbs.

DDE-1FH . . \$69.95

Dual 5¼" Disk Drive Enclosure



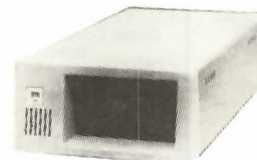
DDE-2HH
(Back View)

Houses Two Half-Height 5¼" Disk Drives (Vertical Mount)

• Power: 2 x +5V @ 1.0A, 2 x +12V @ 1.2A* (*not simultaneously) • Textured paint
• Data cable strain relief for operation safety • Complete w/power supply, switch, power cord, fuseholder and connectors
• Size: 3½"W x 5⅞"D - 6⅞"H (slope) x 12⅞" (bottom) - 13⅞"D (top) • Wt.: 6.5 lbs.

DDE-2HH . . \$79.95

5¼" Hard Disk Drive Enclosures



HDDE-1FH
(Front View)

Houses One Full-Height (HDDE-1FH) or One Half-Ht. (HDDE-1HH) 5¼" Hard Disk Drive

• Power: +52W - +5V @ 2.5A, +12V @ 2.5A - peak 3.5 amp • Textured paint
• Data cable connectors cut-out • Unit comes complete with power supply, switch, power cord, fuseholder, connectors and fan • AC socket • Injection molded front bezel • Built-in fan for cool performance
• Forced air w/removable filter • Size: 15⅞"L x 9⅞"W x 4⅞"H • Weight: 15 lbs.

HDDE-1FH . . \$197.95
HDDE-1HH . . \$199.95

8" Disk Drive Enclosure



DDE-8FH
(Front View)

Houses One Full-Height 8" Disk Drive (Vertical Mount)

• Power: +24V @ 6.0A, +5V @ 6.0A, -5V @ 1.0A • Textured paint • Data cable strain relief • 1 AC connector for AC Disk Motor provided • Unit comes complete with power supply, switch, power cord, fuseholder, connectors, and built-in fan for cool performance
• Forced air with removable filter • AC socket • Size: 4⅞"W x 8⅞"H - 9⅞"H (slope) x 21¼" (bottom) - 21¾"D (top)
• Weight: 19 lbs.

DDE-8FH . . \$199.95

*All disk drives above do not include case, power supply or cables. All manuals purchased separately are \$10.00 each.
See page 46 for Disk Drive Cables — See page 65 for Power Supplies

DISKETTES AND ACCESSORIES

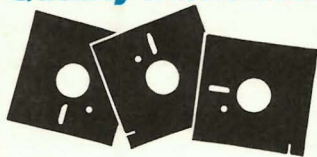
Quality Diskettes!

5¼" DISKETTES

Lifetime Warranty!

SSDD = Single Sided Double Density

DSDD = Double Sided Double Density



Part No.	Description	Boxed	PRICE
SSDD	5¼" SSDD Soft Sector with Hub Ring & Envelope (NASHUA)	10	\$ 9.95
SSDD-100	5¼" SSDD Soft Sector with Hub Ring (Bulk)	100	\$89.95
DSDD	5¼" DSDD Soft Sector with Hub Ring & Envelope (NASHUA)	10	\$11.95
DSDD-100	5¼" DSDD Soft Sector with Hub Ring (Bulk)	100	\$99.95



Recording Interchange 5¼" Diagnostic Disk

The RID is a precision tool set up in terms of software routines on a 5¼" flexible disk. The disk can be inserted in a drive for fast (less than 1 min.), comprehensive, accurate, pass-fail determination of seven critical drive factors that can affect disk interchangeability (disk speed, noise tolerance, write/read, track alignment, positioner backlash, clamping, & erase crosstalk.)

Part No.	Description	Price
5S2-1	IBM PC and XT.	\$39.95
5S1-2	Apple II, II+ and IIe.	\$38.95

Diskette Envelopes

Sleeves for Bulk-Purchased Diskettes

• Tear proof • Lint/contaminant free • Anti-static protect. • Wear resistant

Part No.	Description	Price
MP5201	10 White 5¼" Envelopes.	10 for \$1.29
MP5201-100	100 White 5¼" Envelopes.	100 for \$9.95

Color-Coded Diskette Envelopes

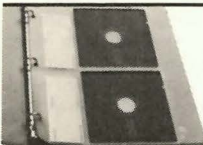
Ideal for Data Identification!!

• Tear proof • Lint/contaminant free
• Anti-static protection • Wear resistant

Please specify color code:

(B) Blue, (R) Red, (S) Silver, (Y) Yellow, (G) Green

Part No./Color Code	Description	Price
CC5201 (_)	10 5¼" Envelopes.	\$ 1.95
CC5201-100 (_)	100 5¼" Envelopes.	\$14.95
CC-COMB	10 envelopes—2 ea. color (B) (R) (S) (Y) (G).	\$ 2.49



Vinyl Pages For 3-Ring Binders

Protects disks from dirt, scratches, dust, spills, and other contaminants. Reduces the risk of getting dirt near your disk drive head. Size: 8½" x 11"

Part No.	Description	Price
PC001	2 Pocket 5¼" Vinyl Page.	10 for \$6.95
PC001-2	4 Pocket 5¼" Vinyl Page.	10 for \$7.95



Mail Pak™

- Holds up to 3 diskettes
- Ideal for mailing and retail packaging
- Dust proof and durable
- Transparent sleeve allows easy identification

Part No.	Description	Price
MP-05	Holds 3 each 5¼" Diskettes.	\$2.49 each

MINI-PAK

• Stores 10 (5¼") diskettes • Protects disk from dust contamination
• Durable smoked plastic • Size: 6"L x 5½"H x 1¼"W

Part No.	Description	Price
MP-10	Stores 10 (5¼") Diskettes.	\$2.25 each

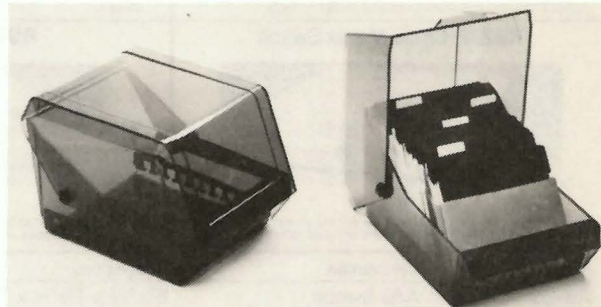
• Quality Components

• Competitive Pricing

• Prompt Delivery

• (415) 592-8097

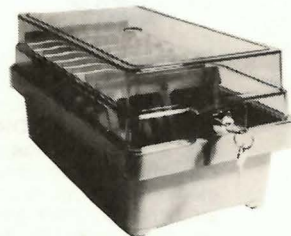
DISK MINDER



• Attractive, functional disk storage system • 36 (3", 3.25" and 3.5"), 75 (5¼") or 50 (8") disk storage capacity • Easy filing and retrieving • Protects disk from dust contamination • Molded from durable smoked plastic with front carrying handle • Size (DM36): 8½"L x 5½"W x 4½"D • Size (DM50 and DM75): 7"W x 6½"H x 9¼"D • Weight: 2 lbs.

Part No.	Description	Price Each
DM36	Stores 36 (3", 3.25", 3.5") Diskettes.	\$13.95
DM75	Stores 75 (5¼") Diskettes.	\$14.95
DM50	Stores 50 (8") Diskettes.	\$23.95

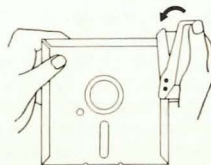
SECURITY DISK FILE



• Stores 100 5¼" diskettes • Security lock with 2 keys • Disk protection—avoid the risk of errors from dust or mishandling • ABS case with acrylic cover • 9 individual disk dividers with index tabs • Anti-static • Size: 14"L x 7.5"W x 7"H

DX-85A. \$16.95

DISK NOTCHER SAVE \$\$\$!



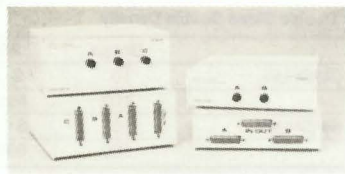
The Notcher saves you money by allowing you to use the flip side of your 5¼" diskettes for back-up copies.

Features:

- Accurate position guide
- Square notch cut
- Plastic clippings catcher
- Easy leverage handle

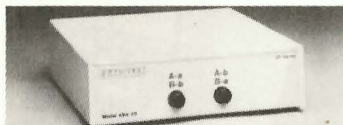
Notcher. \$7.95

RS232 Switches


ABC-25
AB-25

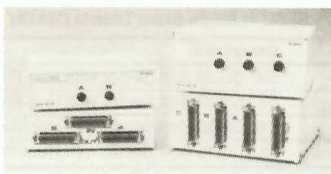
- All 25 pins switched • Can be switched with IBM PC parallel port
- DB25S (Socket) connectors with gold plated contacts

RS232 Cross Matrix Switch


ABX-25

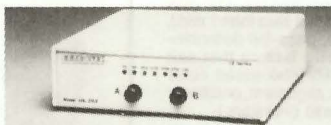
- Enables alternate use of 2 computers & 2 peripherals • All 25 pins switched • DB25S (Socket) connectors with gold plated contacts

Centronics Parallel Switches


AB-36
ABC-36

- All 36 pins switched • Female centronics connectors with gold plated contacts

RS232 LED Switch


ABL-25LE

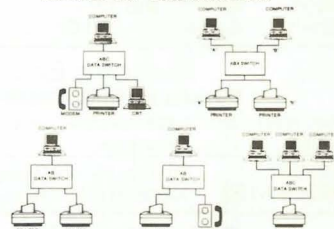
- Features LED functional indicators • All 25 pins switched • DB25S (Socket) connectors with gold plated contacts

The DATA SPEC XP (extended performance) and LE (luxury edition) Series of data switches provide a low cost, practical method for inter-connecting computers and their peripherals. The user experiences cost effective switching between printers, plotters, terminals, modems or other peripherals without the need for time consuming cable changes. DATA SPEC's versatile data switches allow you to expand a PC network, making fullest use of all equipment and resources.

DATA SPEC® Data Switches Feature:

- Fully shielded construction — Exceeds FCC requirements
- Reinforced printed circuit boards
- All pins switched
- All metal construction
- Gold plated connector pins
- Safe "break before make" operation
- Pushbutton operation
- Long life, heavy duty operation
- Anti-skid feet
- Low cross talk, low capacitance
- One year limited warranty (parts and labor)

Typical Applications for DATA SPEC® Data Switches:



Part No.	Description	Dimensions	Price
AB-25	A/B Switch	6½"W x 1⅞"H x 7"D	\$ 54.95
ABC-25	A/B/C Switch	6½"W x 3"H x 7⅞"D	\$ 94.95
ABX-25	Cross Matrix Switch	6½"W x 1⅞"H x 7"D	\$ 79.95
AB-36	A/B Switch	6½"W x 1⅞"H x 7"D	\$ 89.95
ABC-36	A/B/C Switch	6½"W x 3"H x 7⅞"D	\$129.95
ABL-25LE	LED Switch	6½"W x 1⅞"H x 7"D	\$119.95

MOTOR SPEED CONTROLLERS AND BATTERY CHARGER


MSC-400A

MSC-1500A


ONE YEAR WARRANTY!

Professional, Solid State Full Range Motor Speed Controller/Light Dimmer

(WITH SPECIAL ELECTRONIC NOISE AND SURGE SUPPRESSOR)

Dial the right speed for your appliances and all your electric power tools, with virtually no loss of power. MOTORWIZ permits continuous speed adjustment from idle to full rpm of any universal series-wound DC motor (brush type), AC/DC motor, shaded-pole and capacitor-start motors. Ideal for applications ranging from residential (sewing machines, electric blankets, slide projectors, mixers, blenders, hand tools, etc.) to commercial and industrial (sanders, grinders, blowers, pumps, power tools, drills, glue guns, soldering irons, fans, laboratory equipment, etc.).

Specifications: • Load capacity: 15 amps intermittent (1875 watt, 2.5 HP); 12 amps continuous (1500 watt, 2.0 HP) • Infinitely variable speed control from idle to full rpm • Compact size, heavy duty, attractive construction (gold anodized aluminum housing) • Input: 120VAC 50-60Hz • Adjustment range is 5%-95% of input voltage • Heavy-duty, 16 gauge, 2 conductor line cord, 6 feet long • Size: 4⅞"L x 1⅞"W x 2"H

MSC-400A (1 Socket MotorWiz).....\$29.95

Specifications: • Power-On indicator light • 15 amps resettable circuit breaker protects equipment against accidental overloads • No fuses to replace • Heavy-duty, 14 gauge, 3 conductor line cord, 6 feet long • Master on-off rocker switch, controls both primary and convenience sockets • Size: 6"L x 4"W x 2¼"H • All other specs are equivalent to the MSC-400A (above).

MSC-1500A (2 Socket MotorWiz).....\$39.95



BATTERY CHARGER

One Year Warranty

FEATURES: • Recharges any size NI-CAD battery, two or four batteries at a time (AAA, AA, C, D and square 9V cell) • Simple operation — just plug into an ordinary household outlet • Fully automatic • Safe, cannot overcharge battery • Each section equipped with LED indicator to determine proper charging — indicator lights that fail to go on warn the user to check battery polarity or loose contacts, ensuring batteries against destructive reverse-charge • UL listed • Size: 8¼"L x 4"W x 2¼"H

Charger.....\$12.95

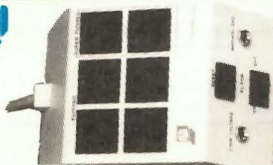
COMPUTER POWER PROTECTION



Six Socket Power Strip

• Six sockets with lighted on/off switch (four sockets are controlled by power switch with surge protection, two sockets are uncontrolled) • 15 amp rating with circuit breaker • 6' cord and plug 3-conductor UL • Aluminum case with mounting plates • Color: beige • Size: 13"L x 1 1/8"W x 1 1/8"H • Weight: 2 lbs.

Model 6 6 Outlet, 6' Cord. \$11.95



DATASHIELD® Surge Protector

• Six month warranty • 6 foot power cord • Clamping level: 200 volts peak \pm 5% • Clamping response: 0.1 ns • Noise attenuation: -20dB to -100dB with frequency range: 100kHz to 300MHz • Power dissipation (100 microseconds): 2,000,000 Watts • Energy dissipation: 200 joules • Low voltage notification: 100V \pm 2% • Applied line voltage: 120V RMS • Circuit overload protection: 10A replaceable fuse • Size: 6"L x 3.9"W x 1.9"H • Weight: 2 lbs.

Model 100 6 Outlet, 6' Cord. \$79.95

DATASHIELD® Back-Up Power Sources

• Six month warranty • Back-up time (average load): 15-25 minutes • Transfer points (nominal 120VAC): 104VAC • Low voltage alarm: buzzer and light • Rechargeable long-life (4 years) battery • Typical recharge time: 10-12 hours • Surge and noise protection • Power dissipation (100 microseconds): 1,000,000 Watts • Energy dissipation: 100 joules • XT300 (Sine Wave) designed for PC's with hard disk memory • AT800 (Square Wave) designed for multi-user PC's and business systems.

Part No.	Description	Weight	Size	Price
XT300	4 Sockets, 300 Watt	37.5 lbs.	7 1/2"W x 13 1/2"D x 10 3/8"H	\$449.95
AT800	4 Sockets, 800 Watt	83 lbs.	12"W x 15 1/2"D x 8 5/8"H	\$799.95



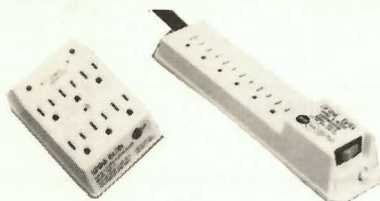
All Tripp-Lite Products
Carry a 1 Year Warranty



Isobar Surge Suppressors

Exclusive multiple filters clean up your line power and isolate interaction between duplex receptacles. • Handles up to 13,000 amps peak capacity • Starts suppressing spikes at 140VAC RMS • Transient response time: 5ns • High frequency noise suppression: >6dB @ 500kHz, >12dB @ 1MHz, >30dB from 5MHz to 100MHz • Load handling: 15 amps (1875 watts)

Part No.	Description	Weight	Size	Price
IBAR-2-6	2 Outlet, 6' Cord	2 lbs.	5 1/2"L x 3 1/2"D x 2 1/2"H	\$44.95
IBAR-4-6	4 Outlet, 6' Cord	2.5 lbs.	6 1/2"L x 3 1/2"D x 2 1/2"H	\$59.95
IBAR-8-15	8 Outlet, 15' Cord	4 lbs.	10 1/2"L x 3 1/2"D x 2 1/2"H	\$74.95

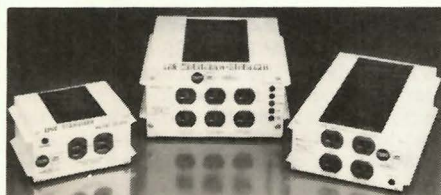


Spike Blok and Spike Bar

The answer to low cost spike and noise suppression.

• Handles up to 140 joules spikes at current levels up to 13,000 amps • Starts suppressing spikes at 150VAC RMS • 140 watt second capacity • Response time: within 20ns • On/off lighted rocker switch and 6' cord on spike bar • Circuitry indicator light • Six outlets in an attractive beige housing • Protection mode: Normal and transverse mode • Load handling: 15 amps (1875 watts)

Part No.	Description	Weight	Size	Price
Spike Blok SK6-0	6 Outlet Wall Block	1 lb.	3 3/8"W x 1 1/4"D x 4 3/4"H	\$34.95
Spike Bar SK6-6	6 Outlet, 6' Cord	1 1/4 lbs.	10 3/4"L x 2 1/2"W x 1 3/4"H	\$39.95



Brown-Out Protector Line Conditioners

Brownout protector, complete with the finest surge and RFI suppression network. The LC series line conditioners automatically regulate and maintain output voltage for sensitive loads when input voltage varies.

• Maintains load voltage at 120VAC (\pm 5%) from 96VAC to 138VAC input range • 98% efficient • load regulation is 2% from no load to full load • Response time: 1/2 cycle nominal, 3 cycle maximum • High/low voltage indicator lights

Part No.	Description	Weight	Size	Price
LS-600	2 Outlet, 600 Watt	6 lbs.	5 1/2"L x 6 1/2"W x 3 1/2"H	\$ 99.95
LC-1200	4 Outlet, 1200 Watt	10 lbs.	6"L x 7 1/4"W x 3 5/8"H	\$169.95
LC-1800	6 Outlet, 1800 Watt	14 lbs.	9"L x 9 1/2"W x 5"H	\$239.95



Emergency Back-Up Systems

NEW, faster response time! Provides safe shut down for your computer equipment, when your power fails. Enclosed heavy duty gel cell battery for 15 to 35 minutes of running time at full load, or up to 120 minutes for lighter loads.

• Transfers from line to battery power within 8ms (less than 1/2 cycle) • Attractive desk top cabinet with four receptacles • Full brownout protection • 425 and 1000 watt models sound audible alarm during power failure • AC line clamping of transient spikes and surges • Built-in regulated battery charger automatically restores battery to full charge when AC power is restored • Status indicator lights for line power and battery power

Part No.	Description	Weight	Size	Price
BC200-10	2 Outlet, 200 Watt	20 lbs.	7 1/2"W x 10 1/2"D x 4 3/4"H	\$289.95
BC200-28	4 Outlet, 200 Watt	36 lbs.	8 3/4"W x 13 1/2"D x 6 1/4"H	\$369.95
BC425FC	4 Outlet, 425 Watt	38 1/2 lbs.	8 3/4"W x 13 1/2"D x 6 1/4"H	\$469.95
BC1000FC	4 Outlet, 1000 Watt	80 lbs.	11 1/2"W x 17 1/2"D x 10 1/2"H	\$999.95

Voice Synthesizers for Apple, Commodore, IBM and RS232 Computers

NEW
Demonstration
Software
Available!

JE520
VOICE SYNTHESIZER

JE523 (Apple)
INTERFACE MODULE

JE521 (Commodore)
INTERFACE MODULE

JE520 VOICE SYNTHESIZER

FOR COMMODORE 64, VIC-20 — APPLE II, II+, IIe

Add speech capability to your Commodore 64 or VIC-20, Apple II, II+ or IIe computer with JAMECO's JE520 Series Voice Synthesizer. Speech — the most effective means of communication available to man — is now immediately available for your computer.

Applications

- Education • Entertainment • Instrumentation
- Games • Telecommunications • Handicap Aids

JE520 Features

- More than 250 basic words, prefixes, suffixes, which allow the formation of well over 500 total words
- Allows music, graphics and speech simultaneously
- Programs in BASIC and/or Assembler
- Very understandable and realistic male voice
- Built-in amplifier, speaker, volume control and audio jack
- Plug-in user-ready with complete documentation and sample software

The JE520 will plug right into your computer and be talking in minutes. It produces a very clear, natural male voice. The outstanding speech quality is produced using National Semiconductor's DigitaTalker™ speech processor IC with four JAMECO custom memory chips. Case size: 7 1/4" L x 3 1/4" W x 1 3/8" H. Weight: 1 lb.

PART NO.		PRICE
JE520CM	Voice Synthesizer for Commodore 64 or VIC-20 (Includes JE521 Interface Module).	\$ 99.95
JE521TS	Text-to-Speech Program for Commodore 64 or VIC-20 (5 1/4" Disk).	\$ 9.95
JE521	Commodore Interface Module.	\$ 19.95

APPLE II, II+ and IIe

JE520AP	Voice Synthesizer for Apple II, II+ or IIe (Includes JE523 Interface Module).	\$119.95
JE523TS	Text-to-Speech Program for Apple II, II+ or IIe (5 1/4" Disk).	\$ 9.95
JE523	Apple Interface Module.	\$ 39.95



JE520 VOICE SYNTHESIZER
WITH JE525 (IBM or EQUIV.)
RS232 INTERFACE MODULE

NEW

JE520 VOICE SYNTHESIZER

FOR IBM OR ANY RS232 COMPUTER

The JE520 Voice Synthesizer for IBM or RS232 computers has the same features as listed above. The JE525 Interface Module allows the JE520 Series Voice Synthesizer to be interfaced with most popular microcomputers with the use of the standard RS232 port and logic levels. The JE525 Interface Module is powered from a wall transformer. Sample program is included in the User Manual.

JE525 Interface Module Features:

- IBM compatible
- CP/M compatible
- Power ON indicator
- Switch for DTE and DCE RS232 formats
- Indicators for DTE and DCE modes
- Standard DB25 female connector

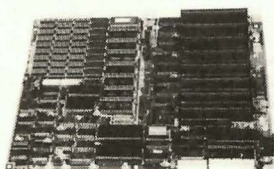
PART NO.		PRICE
JE520IBM	Voice Synthesizer for IBM or RS232 Computers (Includes JE525 Interface Module).	\$199.95
JE525TS	Text-to-Speech Program for IBM (5 1/4" Disk)	\$ 9.95
JE525	IBM/RS232 Interface Module.	\$119.95

• Request NEW Product Flyers: • Winter • Spring • Summer

IBM® COMPATIBLE COMPUTER ACCESSORIES

BUILD AN IBM PC/XT COMPATIBLE!

IBM PC XT Compatible Motherboard



- Comes with 64K of Memory (expandable to 640K with 256K x 1 chips) • 8 expansion card slots • 8087 co-processor capability
- Handles up to four drives

The whole board comes complete (including BIOS ROM) with system board, specifications and schematics. Ideal for engineer or OEM applications! Size: 12" L x 8 1/2" W x 15/16" H.

IBM-MB. \$349.95

IBM PC XT Compatible Case



Expand Your PC!

- Metal housing and chassis with coating & anti-static treatment
- Plastic face plate
- Flip-up lid for easy access
- Back plate set for expansion including 8 card slots and power supply mount
- Color: grey • All necessary hardware for expansion included
- Weight: 17 lbs.

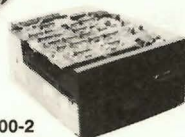
Size: 19 1/2" W x 16 1/2" D x 5 3/4" H

IBM-Case. \$59.95

5 1/4" Disk Drives



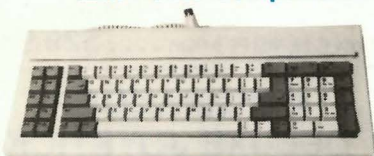
FD55B



TM100-2

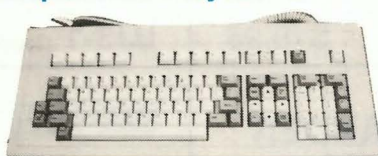
SA455 Shugart 5 1/4" Half-Ht. **\$99.95**
FD55B Teac 5 1/4" Half-Ht. **\$99.95**
TM100-2 Tandon 5 1/4" Full-Ht. **\$99.95**

IBM PC XT Compatible Direct Replacement Keyboards



- Identical layout as original IBM PC keyboard • Illuminated "Caps Lock" and "Num Lock" keys • 84 keys, mechanical switches (uses Intel 8048) • Complete with schematics and instructions • Color: off-white • Size: 17 1/4" L x 7 1/4" W x 1 1/4" H

IBM-KB. \$79.95



- Enhanced PC/XT keyboard (equivalent to Keytronics™ 5151) • Separate cursor and numeric keyboard • Type-writer style layout: easier to learn! • LED indicators
- Ready-to-go, complete with schematic & instructions
- Color: off-white • Size: 20" L x 8 1/2" W x 1 1/2" H

IBM-5151. \$129.95

IBM PC/XT Equivalent 130W Power Supply



- +5VDC @ 15A
- 5VDC @ 0.5A
- +12VDC @ 4.2A
- 12VDC @ 0.5A

- Input: 100V-130V @ 47Hz • Output: +5VDC @ 15A, -5VDC @ 0.5A, +12VDC @ 4.2A, -12VDC @ 0.5A • Plug compatible connectors • Fits into IBM PC • Built-in fan
- Weight: 6 lbs. • Size: 9 1/2" L x 5 1/2" W x 4 3/8" H • Spec. included

IBM-PS. \$99.95

MONITOR

12" Green Monochrome Monitor for IBM PC



FEATURES:

- RGB output • Band width: 20MHz
- Input impedance: 75 Ohm
- Resolution: 800 lines at center
- Power consumption: 30 watts
- Complete with tilt/swivel monitor stand
- Weight: 19 lbs • Size: 14.5" W x 16" D x 16.5" H

IBM-MON. \$109.95



Integrated Color Board for IBM PC, XT, AT and Portable Computers

- Fully compatible with all IBM color software and RGB monitors • Fits the difficult-to-use half card short slot or any long slot • Requires 1/3 the power of conventional color boards
- Quality backed by two year warranty

Regular Special
IBM-ICB... \$229.00 \$149.95

CABLES AND BEZELS

IBM-BEZEL	Half-Height Bezel (Fills empty space when mounting half-height drives)	\$ 4.95
IBM-KEC	Keyboard Extension Cable for IBM PC & XT Computers — 5' length.	\$ 9.95
MMS-2206	Serial Modem/Printer Cable — 6' length — DB25P (Male) to DB25P (Male).	\$10.75
MFS-2206	Serial Modem/Printer Cable — 6' length — DB25P (Male) to DB25S (Female).	\$10.95
IBM-8PC	Parallel Printer Cable — 8' length — DB25P (Male) to CEN36M Centronics (Male).	\$17.95

MITAC • ADDITIONAL IBM COMPATIBLE ADD-ONS • MITAC

IBM-FCC	Floppy Disk Controller Card — Run up to four 5 1/4" drives.	\$ 79.95
IBM-MCC	Monochrome Display Card — Light pen interface.	\$ 99.95
IBM-E384K	384K RAM Card — Includes 384K RAM, parallel printer port, serial RS232 async port, game adapter port, and battery supported real-time clock/calendar.	\$199.95
IBM-10MBK	10 MB Half-Height Hard Disk Kit — Includes 10 MB hard disk drive, controller card, cable, bezel, mounting brackets and manual.	\$599.95
IBM-20MBK	20 MB Half-Height Hard Disk Kit — Includes 20 MB hard disk drive, controller card, cable, bezel, mounting brackets and manual.	\$799.95

COMMUNICATION SOFTWARE for the JE664 PROGRAMMER — See Inside Front Cover

JE664-ARS Communication Program for IBM-PC or XT and Compatibles

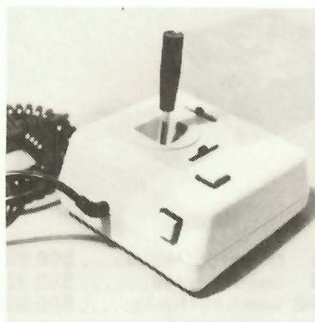
- Fast compiled BASIC program • Easy to use, menu driven • Print hard-copies of EPROM data • View data in Hex and ASCII

The JE664-ARS Communication Program was written for quick interfacing between the JE664-ARS EPROM Programmer and the IBM-PC computer and compatibles. This menu-driven program allows the user to Load and Save EPROM data to and from the computer or floppy disk. Data entered by the computer can be viewed in Hex and ASCII formats. Printed hard-copies are also displayed in both formats. This program is ideal for keeping archives of master EPROMs on disk. The program is compatible for all EPROMs listed with the JE664 (see inside front cover). **Computer requirements:** IBM PC, XT (or eq.) with at least 128K RAM and one serial port. Optional: One parallel port printer.

JE664-ARS-CP	JE664-ARS Communication Program (5 1/4" Disk & User's Instructions).	\$49.95
JE664-CP CABLE	Cable for IBM PC to JE664-ARS Program (5' Shielded Cable Assembly)	\$29.95

JOYSTICKS AND PADDLES

JOYSTICKS FOR YOUR PERSONAL COMPUTERS



Size: 4"L x 4"W x 1 7/8"H

High Quality JOYSTICK for the Apple IIe

Features:

- Auto-centered joystick with fine tuning
- Accurate and stable performance
- Easy & handy to operate
- Elegant appearance and durable mechanism
- Long life variable resistor control

AJS-1 (Joystick for Apple IIe) **\$19.95**



Size: 4 1/2"L x 3 3/4"W x 2"H

Universal JOYSTICK

for Apple II or IIe and IBM PC or PCjr

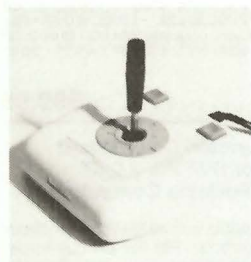
Features:

- 2 operating modes can be selected: "Auto-Centering" or "Free-Floating"
- 2 pairs of "Fire" buttons for the left or right-hand user
- 10 feet of coiled cord
- Easy & handy to operate
- Accurate and stable performance
- Fine adjustments
- Includes three cables

UJS-1 (Joystick for Apple II, IIe, IBM PC & PCjr) **\$29.95**



COMMANDER JOYSTICK



Size: 4"L x 4 1/4"W x 1"H

- Compatible with Atari™ VCS 400/800, 2600; Commodore™ 64 and VIC-20; Sears™ Video Arcade & ColecoVision™ System with optional adapter (adapter UYA — see description at right).
- Ergonomic design for hours of complete control without fatigue.
- "Snap Action" fire for fast response.

CJS-1 (CR-301) (6000 available) **\$4.95**



COMMANDER DELUXE JOYSTICK



Size: 7"L x 2 3/8"W x 2 1/8"H

- Compatible with Atari™ VCS 400/800 & 2600; Commodore™ 64 and VIC-20; Sears™ Video Arcade & ColecoVision™ System (with adapter UYA).
- Also compatible with Apple™ II, II+, IIe and Franklin™ Computers (with optional adapter AA-1)
- "Snap Action" fire

(3000 available)

DJS-1 (CR-401) . . . **\$7.95**

Part No.	Description	Price
AA-1	Apple Adapter.	\$3.95
UYA	Universal "Y" Adapter. . . .	\$3.95
(Allows parallel connection of two joysticks to one game port)		



Size: 3 1/2"L x 2 1/4"W x 1 1/2"H

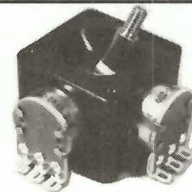
General Application PADDLE

A great remote volume control!

9600 Available!

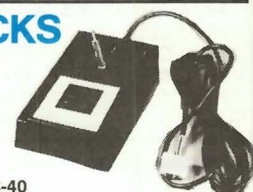
The RSP is a versatile paddle with endless applications. It houses a 1 Meg potentiometer (can be easily substituted to fit your application). A pair make a nice set of X-Y controls for any computer plotting problem or pong game. Also makes a great remote volume control for speakers in your car, van, boat, etc. The RCA-10-RCA (10-foot cable assembly with 2 male jacks) works great with the RSP Paddle — **Just Plug In!**

Part No.	Description	Price
RSP	Paddle.	\$.99 each
RCA-10-RCA	Cable Assembly.	\$1.75



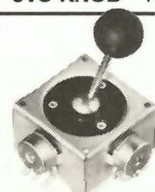
Size: 1 1/2"D x 1 1/2"W x 1 1/2"H

JOYSTICKS



Size: 4 3/8"L x 2 3/8"W x 1 1/2"H

PART NO.	DESCRIPTION	PRICE EACH
JS-5K	5K Linear Taper Pots.	\$5.25
JS-150K	150K Linear Taper Pots.	\$4.75
JVC-40	40K (2) Video Controller in case.	\$1.95
JS-KNOB	Knob for JS-5K and 150K.	\$.99
JVC-KNOB	Knob for JVC-40.	\$.99

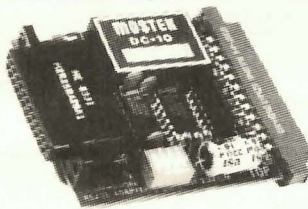


150K JOYSTICK *Close-Out!*

- Durable metal construction
- Great joystick for the price
- Limited quantity available (900 pcs.)
- Size: 1 1/8" square x 3"H

MJS-150K **\$3.95**

COMMODORE COMPATIBLE COMPUTER ACCESSORIES



RS232 Adapter for VIC-20 and Commodore 64

The JE232CM allows connection of standard serial RS232 printers, modems, etc. to your VIC-20 and C-64 computers. A four-pole switch allows the inversion of the four control lines. Complete installation and operation instructions are included.

• Plugs into User Port • Provides standard RS232 signal levels • Uses six signals: Transmit, Receive, Clear to Send, Request to Send, Data Terminal Ready, and Data Set Ready

JE232CM RS232 Adapter for VIC-20 and Commodore 64 . . . \$39.95

VOICE SYNTHESIZER for COMMODORE VIC-20 and C-64

JE520CM (PLEASE SEE PAGE 74 FOR A DETAILED DESCRIPTION). **\$99.95**

CUSTOM COMMODORE CHIPS for VIC-20, C-64 and C-128 PC's

PART NO.	DESCRIPTION	PRICE	PART NO.	DESCRIPTION	PRICE	PART NO.	DESCRIPTION	PRICE
*6510	CPU.	\$19.95	*6526	CIA.	\$25.95	*6581	SID.	\$32.95
*6525	TPI.	\$20.95	*6560	VIC-I.	\$29.95	82S100PLA	PLA.	\$37.95
*SPECS. AVAILABLE @ \$1.50 EACH			*6567	VIC-II.	\$44.95	NOTE: 82S100 = U17 (C-64)		

COMMODORE JOYSTICKS

(PLEASE SEE PAGE 76 FOR A COMPLETE LISTING)

COMPUTER TO MONITOR CABLE FOR THE COMMODORE

RCA-3-DIN (PLEASE SEE PAGE 46 FOR A DETAILED DESCRIPTION). **\$3.95**



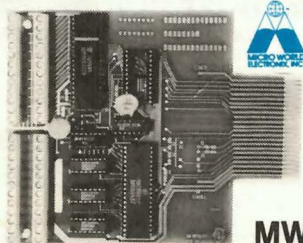
300 BAUD AUTO MODEM for COMMODORE 64 *Mitey-Mo*

- FREE Compu-Serv Time!
- Discount Subscription to PlayNET!
- 3 Year Warranty!

Compare these mighty interesting features:

MODEM FEATURES	MITEY MO	COMMODORE AUTOMODEM
Auto Dial.	YES	YES
Auto Answer.	YES	YES
Auto Redial.	YES	NO
Software Included.	YES	YES
Upload/Download Capacity.	YES	NO
VT-52 Emulation.	YES	NO
Menu Driven.	YES	NO
28K Software Buffer.	YES	NO
Printing Capability.	YES	NO
Easy-to-Use Manual.	YES	NO
Bell 103 Compatible.	YES	YES
Multiple Baud Rates.	YES	YES
Cables Included.	YES	YES
Single Switch Operation.	YES	NO
Warranty.	3 years	90 days
Suggested Price.	\$99.95	\$129.95

Mitey Mo Complete with modem, cable, "Smart 64 +4 Terminal" software and New 125-page manual. **\$74.95**



GENERAL PURPOSE INPUT/OUTPUT CARD

The MW-611 is a general purpose input/output card that plugs into the expansion port of the C-64. The card will digitize 16 analog inputs, and provide 16 high current discrete outputs. These sixteen discrete outputs are provided for general purpose switching such as driving lamps, relays, solenoids and small motors. They are programmable through Basic, individually or in groups.

- 16-channel analog multiplexer • 16 high current discrete outputs • EPROM socket for custom programs
- A/D (0-5V Range) and D/A converters • 16 pin footprint for experimental circuits • Acquisition time: 100 micro-seconds per sample • The MW-611 comes complete with input/output card, 5 1/4" disk software program and indepth documentation (includes instructions, schematics, typical hookups, listing of program, and more)
- Size: 6 1/2" L x 5 1/4" W x 7/16" H

MW-611 For Commodore 64 \$199.95



PARALLEL PRINTER INTERFACE FINALLY, A Universal Graphics Interface!

The ALL NEW "MICROGRAFIX" parallel interface by Micro World Electronix Inc., is a complete *switch selectable* interface with full graphic capabilities for the VIC-20™ and Commodore 64™. Truly the most universal of interfaces with the capacity to print the Commodore® graphics set, since it is switch selectable for virtually all Centronics compatible parallel printers including Daisy wheel printers.

- Features: • Fully intelligent interface • Complete graphics capability • Complete built-in status and self-test report
- Complete with emulate mode, transparent mode, total text mode, and ASCII conversion modes that insure virtually total compatibility with popular software • Manual included • And more! FREE 2K Buffer for MW350 included — Speed up graphics and text printing • Size: 6 1/4" L x 4 1/8" W x 3/4" H

MW-350. For Commodore VIC-20 and C-64 \$69.95

PROMETHEUS MODEMS AND ACCESSORIES



ProModem™ 1200 Intelligent 1200/300 Baud Telephone Modem with Real Time Clock/Calendar

STANDARD FEATURES INCLUDE:

- Completely unattended operation — with or without computer
- Auto-Answer and Auto-Dial
- Programmable Intelligent Dialing — with easy access to PBX systems, MCI™, and Sprint™
- Includes various commands such as "Redial if busy" and "Wait for tone before continuing to dial"
- "Tilt-up" ergonomically designed front display panel for easy viewing
- Accessible time base for general computer program use
- Help Commands — convenient display of instructions menu for quick reference
- Diagnostics — sophisticated internal and remote modes identify problems
- Touch Tone™ and Pulse dialing
- Built-in speaker with external volume control for monitoring line operation
- Hayes command set compatible PLUS an additional extended command set and, IT'S EXPANDABLE!

Alphanumeric Display Not Included

ProModem™ 1200 incorporates LSI microprocessors with unique digital circuitry and a built-in clock/calendar. This design permits the standard unit to be expanded into a full telecommunications system with features available in no other modem in its price range. **ProModem™** is a Bell 212A and 103 asynchronous, 0 to 300 or 1200 baud telephone modem with RS-232C interface for host computer connection. It is FCC registered for direct connect. This stand-alone system has its own internal power supply and is capable of operating entirely independent of the host computer. One-year warranty.

BASIC COMMAND SET: • Immediate answer • Transmitter carrier • Dial command—including simple dial, wait for second dial tone, and autodial • Local echo • Full or half duplex • Switch hook • Audio monitor • On-line • Pulse dialing • Quiet mode • Reverse originate/answer • Set commands — select operating parameters such as number of rings to answer, dialing speed, etc. • Check operating parameters • Touch-tone™ dialing • English result codes

EXTENDED COMMAND SET: • Dial group reference code in the directory • Dial directory entry • Dial special number i.e. Sprint™, MCI™, etc. • Display input buffer contents • Display modem status • Delete directory entry • Add directory entry • List directory entries • Send log on sequence • Set or display time (three modes) • Search for reference name in directory • Start internal diagnostics • Start/stop/restart timer • Wait 00-99 seconds before executing next command • Store message to be automatically sent • Defer execution until specified time

PM1200 RS232 Stand-Alone Modem. \$299.95

Macintosh™ Stand-Alone Modem

ProModem 1200M: Macintosh 1200/300 baud stand-alone modem complete with ProCom-M (Macintosh) communications software and Mac-to-modem cable. (See page 80 for more information.) Can also be enhanced with the communications buffer option (PM-OP512K below).

PM1200M (Mac-Pac). \$349.95

Apple™ Plug-in Card Modem

ProModem 1200A: 1200/300 baud plug-in modem card for Apple II, II+ and IIe. Plugs into Apple motherboard. On-board firmware allows easy operation with or without software. Two cards but uses only 1 slot. The second card may be placed on your power supply. (See page 80 for more information.)

PM1200A (Apple II, II+ or IIe). \$299.95

IBM PC™ Plug-in Card Modem

ProModem 1200B/BS: 1200/300 baud modem card which plugs into IBM PC or XT. Provides a third serial Com port. Two versions available: 1200B (without software) and 1200BS (with software). The PM1200BS is supplied with powerful MITE communications software from Mycroft Labs. • Hayes Command Set compatible • Auto answer/auto dial • Built-in speaker with volume control • Extensive diagnostics

PM1200B (IBM PC or XT without software). \$239.95

PM1200BS (IBM PC or XT with software). \$274.95

Apple IIc 300 Baud Plug-in Modem

ProModem 300c: 0 to 300 baud intelligent Hayes command compatible modem that attaches to the game port and modem connectors at the rear of the Apple IIc. No external power supply, interface, or cables needed. **Just plug in!**

PM300c (Apple IIc). \$149.95

OPTIONS FOR THE PROMETHEUS PM1200 & PM1200M

Communication Buffer Option for PM1200 and PM1200M — Now expandable up to 512K!

• Comes equipped with an additional serial port so the modem can be used as a serial printer buffer • Retrieval from remote locations using XModem Protocol • Two levels of security: Password and callback • Includes additional memory, 2K CMOS memory (now expandable to 512K), and battery backup. • These additional features can be employed independently or in combination to perform sophisticated telecommunications functions, which include: DATA, OPTIONS STORE, and TIME-BASE CONTINUITY • BUSINESS/PERSONAL TELEPHONE DIRECTORY • AUTOMATIC RECEIPT/TRANSFER BUFFER • MEMORY EXPANSION

PM-OP512K Communication Buffer Option. \$129.95

BUF512K 512K Memory for Communication Buffer Option. \$54.95

NEW UPGRADE for Options Processor (PM-OP)

New upgrade kit now available for those who have purchased an Options Processor and would like to upgrade to the Communications Buffer. The kit consists of a new EPROM for the Options Processor and a serial printer cable with a small peripheral board attached to it. Complete w/printer buffer capability.

PM-OP-Upgrade. \$39.95

Alphanumeric Display

Options Processor required before display can be installed. • 12 easy to install alphanumeric characters. For displaying a variety of messages without use of the host computer. The display can show operating status of modem, diagnostic messages, phone numbers, and real time clock data, to name a few. In the Auto-Answer mode, "MESSAGE 152" would indicate that a message had been received and stored at 1:52 A.M.

PM-ALP Alphanumeric Display. \$79.95

PART NO.	DESCRIPTION	PRICE
MMS-2206	Male to Male Serial Modem Cable for PM1200.	\$ 10.75
MFS-2206	Male to Female Serial Modem Cable for PM1200.	\$ 10.95
PM-COM ()*	ProCom Communication Software for PM1200, PM1200A and PM1200B.	\$ 79.95
(* Please specify operating system — Apple: ProDOS or CP/M — IBM: PC DOS or MS DOS)		
PM-SPECIAL #2	Includes PM-OP512K, BUF512K and PM-ALP for PM1200 and PM1200M.	\$249.95

• Request NEW Product Flyers: • Winter • Spring • Summer

APPLE® COMPATIBLE COMPUTER ACCESSORIES



Jameco
ELECTRONICS

Numeric Auxiliary Keypad for the Apple IIe* — VisiCalc Users!

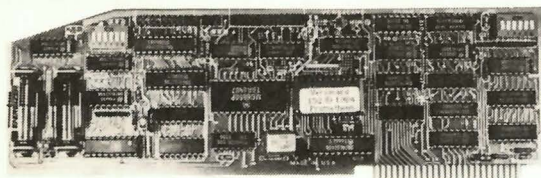
The JE614 is a numeric/auxiliary keypad for the Apple IIe*. It offers the flexibility of a 10-keypad and the convenience of 11 directly accessible functions. Screen manipulating functions make word processing a snap and cursor controls make the keypad ideal for VisiCalc™ users. The JE614 Keypad is housed in a durable metal enclosure and is color-coordinated with your Apple IIe computer. Operation of the keypad can begin within minutes of unpacking. Special functions include: Home, Clear, Clear to End of Screen, Scroll-Up, Scroll-Down, Tab, Delete, Left, Right, Up, Down. Each key has auto-repeat capability. Note: Does not include arithmetic functions.

Size: 5½" L x 4¼" W x 1¼" to 2½" Slope

JE614. \$49.95



PROMETHEUS
PRODUCTS • INC.



- 4 Functions on 1 card: Serial, Parallel, Real Time Clock/Calendar, BSR
- True simultaneous operation — Your Apple thinks separate cards are installed
- Fully compatible with Apple Pascal, CP/M, Apple ProDos and other Apple software
- No special disks or modifications to your Apple
- Now, optional Graphitti Graphics Screen Dump ROM

Part No. Description

VERSACARD	4 functions on one card: SERIAL, PARALLEL, REAL TIME CLOCK/CALENDAR, BSR. . .	\$169.95
PM-ROM ()*	Graphitti Upgrade ROM (Allows high resolution graphics).	\$39.95
PM-SC	Serial Cable for VERSACARD: S26-5'-DB25P (Male).	\$24.95
PM-PC	Parallel Cable for VERSACARD: S20-5'-Centronics (Male).	\$24.95

*Please specify printer — Available for OKI 80/90 Series, Epson/Star, NEC/C-Itoh, Apple Dot Matrix, IDS and Compatibles of printers listed.



Size: 6¼" L x 4¼" W x ¾" H

Parallel Printer Interface for Apple IIc*

The MW-100 parallel printer interface gives the IIc access to virtually any printer with a parallel Centronics-type connector. Just plug in and print!†

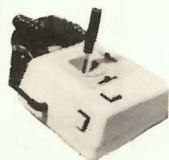
- Connects standard parallel printers to the Apple IIc computer • Plug compatible (no software drivers needed) • Uses Apple's power-up default settings
- Hi-speed data transfer at 9600 baud • Standard text printing fully supported
- One year warranty

†May require separate 9VDC transformer for some printers (Epson, BMC, ThinkJet, etc.)

MW-100. \$69.95
DC9200A 9VDC @ 200mA Transformer. \$ 3.25

Miscellaneous Apple Compatible Accessories

Joystick for Apple IIe*

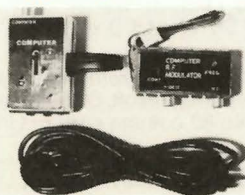


Accurate and stable performance
Size: 4" L x 4" W x 1½" H

Additional Joysticks
See page 76

AJS-1. \$19.95

RF-Modulator Set for Apple II, II+ and IIe*



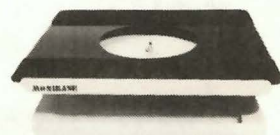
RF-MOD. \$12.95

Quad-Port for Franklin and Apple II, II+, IIe*



- Multiple game port extender
 - 3' Cord • Size: 3" W x 3" D x 1½" H
- Core-4. \$14.95**

12" Monitor Base (For All Monitors)



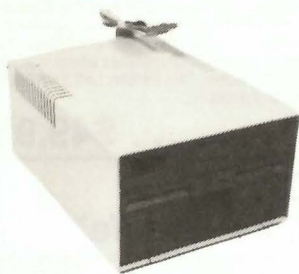
- 360 degree swivel • 12.5° tilt
- Mounting area: 11" W x 10" D

Base-12. \$12.95

*Apple and Apple II, II+ and IIe are registered trademarks of Apple Computer, Inc.

APPLE® COMPATIBLE COMPUTER ACCESSORIES

5¼" Full Height Disk Drive and Controller Card for Apple II, II+ and IIe*



• Belt-driven • 143K formatted storage • Color matches Apple Computer • Works with Apple Controller or other Apple-compatible controllers (JE875) • Complete with connector — just plug into your disk controller card • 35 tracks • Size: 6"L x 3½"W x 8½"D • Weight: 4¼ lbs.

ADD-514 (Disk Drive) . . . \$139.95
JE875 (Controller Card) . . . \$ 49.95

5¼" Half-Height Disk Drive and Controller Card for Apple II, II+ and IIe*



• Direct drive • 6-month warranty • 143K formatted storage • 35 tracks • Super quiet • Works with Apple Controllers or other Apple-compatibles (JE875) • Complete with connector — just plug into your controller • Size: 5¾"W x 1½"H x 8"D • Weight: 4 lbs.

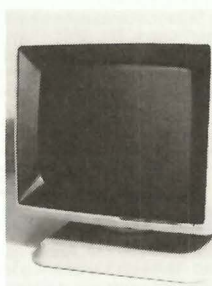
ADD-12 (Disk Drive) . . . \$129.95
JE875 (Controller Card) . . . \$ 49.95

5¼" Half-Height Disk Drive for Apple IIc*

• Same specs as ADD-12 (above) except no controller is necessary

ADD-IIc . . . \$129.95

12" Monochrome Green Monitor for Apple II, II+, IIe and IIc*



Also compatible with other computer systems.

FEATURES:

- Composite video output
- Band width: 20MHz
- Input impedance: 75 Ohm
- Resolution: 800 lines @ ctr.
- Power consumption: 30W
- Complete with tilt/swivel monitor stand
- Weight: 19 lbs.
- Size: 14.5"W x 16"D x 16.5"H

AMON . . . \$99.95

1200/300 BAUD INTERNAL MODEM for Apple II, II+ and IIe*

Complete with on-board software and all necessary hardware!

Just plug the ProModem Card Pack into any expansion slot and connect the telephone cord. Features: • Auto-Answer • Auto Dial • Programmable Intelligent Dialing • Built-in Speaker with Volume Control • Help Commands • Fully Hayes compatible • Extensive Diagnostics and more!

PM1200A . . . \$299.95

1200/300 BAUD STAND-ALONE MODEM for Macintosh

PM1200M/MAC PAC provides everything you need for Macintosh communications including:

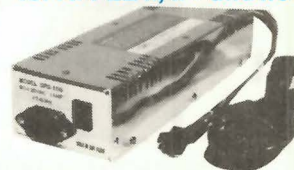
- ProModem 1200
- Cable
- Communications Software (ProCom-M)

NEW! Now Operates with Hayes and Compatible Modems!

ProCom-M Macintosh Software maintains all Macintosh users interfaces including icons, pull down menus, full windowing, dialogue boxes, and mouse control of all commands. ProCom-M includes XModem protocol for error-free file transfer with any personal computer. ProCom-M software includes: • Phone directory • Auto logon capability • XModem protocol • Text editor: cut/paste/copy • Capture buffer • MAC file transfer • Phone log • Group code dialing • Answer mode • Deferred execution

PM1200M (MAC PAC) . . . \$349.95
ProCom-M (Macintosh Software only) . . . \$ 79.95

Switching Power Supply for APPLE II, II+ and IIe*



• Can drive 4 floppy disk drives and up to 8 expansion cards • Short-circuit and overload protection • Fits inside Apple computer • Fully regulated +5V @ 5A, +12V @ 1.5A, -5V @ .5A, -12V @ .5A • Apple-type plug in power cord included • Size: 9¾"L x 3½"W x 2¼"H • Weight: 2 lbs.

KHP4007 . . . \$39.95

Cooling Fan for APPLE II, II+ and IIe*



• Line surge protection • Snaps on the side of Apple II, II+ and IIe enclosures • Eliminates overheating problems thereby boosting reliability and operation life of computer • Switch on front serves as power switch for fan, computer, and extra outlet • Size: 7"L x 2¾"W x 4¼"H • Weight: 2 lbs.

APF-1 . . . \$39.95

JE520 VOICE SYNTHESIZER for APPLE II, II+ and IIe*

See page 74 for a complete description!

JE520AP . \$119.95

• Text to Speech for Apple II, II+ and IIe (5¼" disk) • Used with JE520AP
JE523TS . . . \$9.95

APPLE Keyboard and Case for Apple II and II+*

KEYBOARD (KB-A68):

- 68 Keys • 15-Key Keypad • Direct connection with 16-pin ribbon connector
- Durable metal baseplate (with 6 mounting holes) • Color (keys): brown/grey
- Size: 14½"L x 5½"W x 1½"H

CASE (EAEC-1):

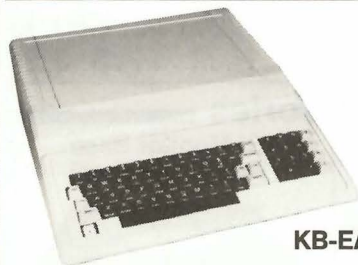
- Accommodates KB-A68 • Pop-up lid for easy access • Fits power supply and motherboard too • Size: 15½"W x 18"D x 4¼"H

SPECIAL FEATURES:

- Automatic-key repeat • Cursor control/numeric keypad • Shift key modified
- 46 predefined function keys (Applesoft, DOS commands & CP/M) • Upper/lower case capabilities when used with 80 column card or U/L case chip • 10 user-define cases

Part No.	Description	Price
KB-EA1	Keyboard and Case	\$99.95
KB-A68	68-Key Apple Keyboard only.	\$69.95
EAEC-1	Expanded Apple Enclosure Case only.	\$34.95

*APPLE, APPLE II, II+, IIe, IIc and Macintosh are registered trademarks of Apple Computers.



KB-EA1

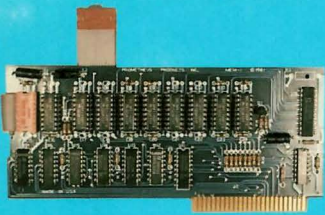


KB-A68

JAMECO's APPLE* Compatible Products

Key:
a = Apple II or II+
b = Apple IIe

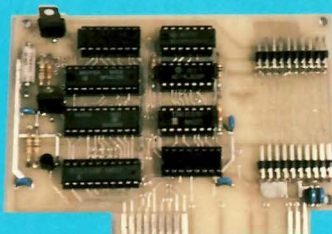
Jameco ELECTRONICS 16K RAM Card (Language Card) For Apple II and II+



The JE860 RAM Card allows the Apple* II and II+ computers to expand from 48K to 64K. Fully compatible to Microsoft Softcard. Runs AppleSoft, DOS, CP/M and Pascal. Complete with instructions. Key: (a)

JE860 (ARC-16K/MEM-1) \$39.95

Jameco ELECTRONICS Controller Card For Apple II, II+ & IIe*



The JE875 is a standard Apple* Controller Card capable of handling up to two drives. Easy to install. Recommended drives: ADD-514 or ADD-12. Complete with instructions. Key: (a,b)

JE875 (ACC-1) \$49.95

Jameco ELECTRONICS 80-Column plus 64K RAM for Apple IIe*



The JE864 is an extended 80-column/64K RAM Card. This effectively doubles the amount of data that your Apple IIe can display as well as its memory capacity.

Uses: Word processing — displays 1000 more characters per screen • Extra memory allows running of extremely large programs • Ultra High Resolution Graphics capability • Complete with instructions. Key: (b)

JE864 \$69.95



Five Key Software Programs!

128K RAM Card For Apple II, II+ and IIe*

RAM Disk!



The JE868 is functionally compatible with the Apple II language card and can be utilized with all software that can be used with a standard 16K card. The JE868 requires no modifications to your Apple computer. Five key software programs are included: Memory Management System, utilities, diagnostics, demos, and RAM disk emulators for DOS 3.3, CP/M and Apple Pascal. Also features DOS relocater. Complete with instructions. Key: (a,b)

JE868 (Expand-A-RAM) \$119.95



Applesurance Diagnostic Disk Controller Card Prevents Crashes! For Apple II, II+ and IIe*

The JE877 serves as a diagnostic tool, an assurance/maintenance tool and a dual disk drive controller. The JE877 will verify and check the operating hardware of your system each time you turn on your Apple II, II+ or IIe*. Test your RAM, ROM, CPU, and disk drives. Diagnostic routines may be cancelled at the touch of a key. Complete with instructions. Key: (a,b)

JE877 (DRV-1/Applesurance II) \$69.95



Parallel Printer Card For Apple II, II+ and IIe*

The JE880 Printer Interface board is an intelligent interface to most of today's popular dot-matrix graphics printers. The JE880 is fully compatible with Apple CP/M, Apple Pascal (or FORTRAN), and most other operating systems and software packages available for Apple II, II+ and IIe*. The JE880 is shipped configured for the Centronics standard and can be re-configured for other standards if necessary. Advanced text printing features include: video screen echo ON or OFF, auto/disable linefeed after carriage return, set/clear the 8th bit of the output data, set left margin and more! Complete with instructions. Key: (a,b)

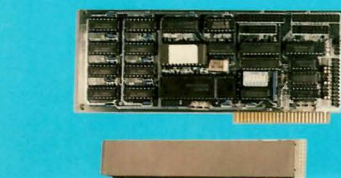
JE880 (PRT-1) \$59.95



Parallel/Serial Buffer Card For Apple II, II+ and IIe*

The JE883 provides the user with up to 64K of additional or buffered memory (18 pages of information). Using the parallel jumper cable supplied, the JE883 will attach to the JE880 (above). Parallel Card needed for operation. The JE883 includes a standard parallel input with both parallel and serial (RS232) buffered outputs. With these features you may access and buffer information to two types of printers (one serial, one parallel) simultaneously. Complete with instructions. Key: (a,b)

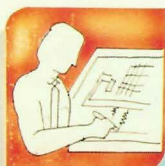
JE883 (P/S Buffer) \$79.95



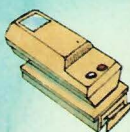


10/24/85

BULK RATE
 U.S. Postage
PAID
 JAMECO
 ELECTRONICS



ENGINEERING



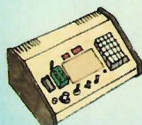
EPROM Eraser



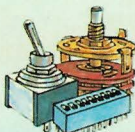
Plug Boards



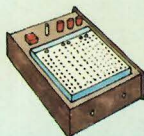
Data Sheets



JE664 EPROM
 Programmer



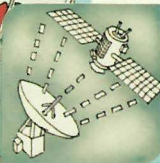
Switches



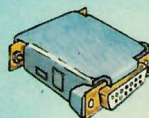
Proto-Boards



DTE
 Enclosures



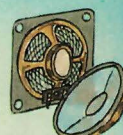
COMMUNICATIONS



Cable Shell



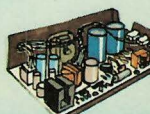
Interference Filter



Speakers



JE520 Voice
 Synthesizer



Power Supply



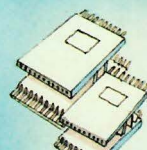
Crystals



Switcher



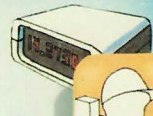
**SERVICE
 SUPPORT**



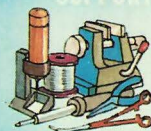
Proto-Clips



Wire Wrap Tool



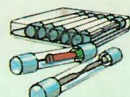
Frequency
 Counter



Tools



Test Kits



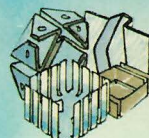
Fuses



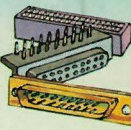
Meters



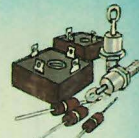
INDUSTRY



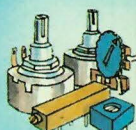
Heat Sinks



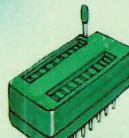
Connectors



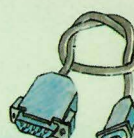
Diodes



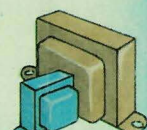
Potentiometers



ZIF Sockets



Cables



Transformers

Valuable IC Pin-out Data Inside

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